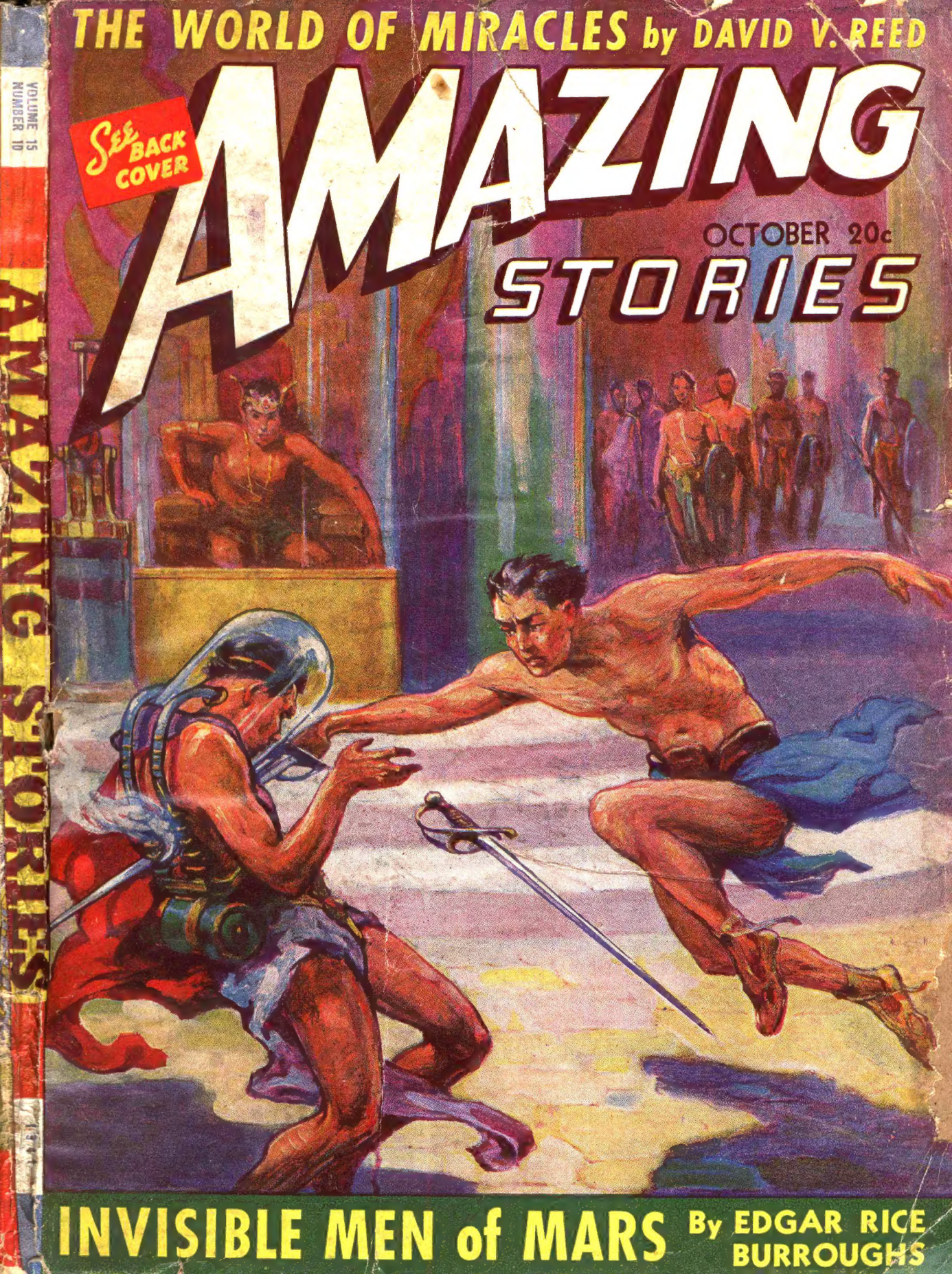
THE WORLD OF MIRACLES by DAVID V. REED

VOLUME 15
NUMBER 10

SEE BACK COVER

AMAZING STORIES

OCTOBER 20c



AMAZING STORIES

INVISIBLE MEN of MARS By EDGAR RICE BURROUGHS

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OCTOBER
1941

AMAZING STORIES

TRADE MARK REGISTERED

VOLUME 15
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Front cover painting by J. Allen St. John illustrating a scene from "Invisible Men of Mars"
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Illustrations by J. Allen St. John; Robert Fuqua; Julian S. Krupa; Joe Sewell
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Volume 15 Number 10

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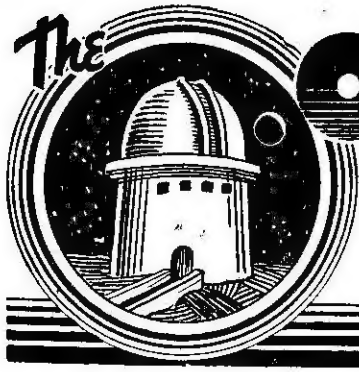


The OBSERVATORY by THE Editor

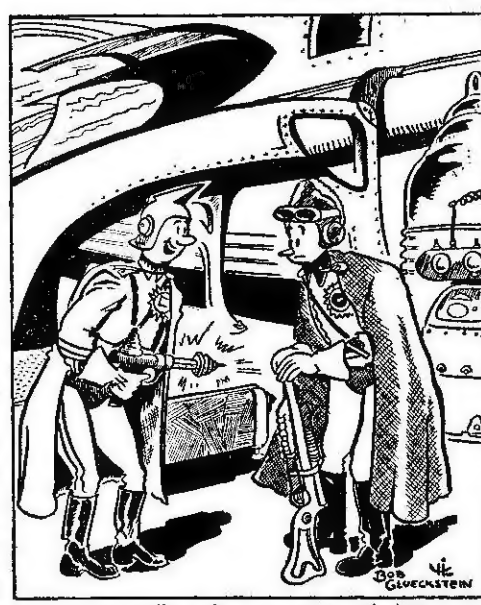
LAST June 21 saw the wedding of author David Wright O'Brien to Eileen O'Conner, which is news in itself, but it's a little story that comes to our ears concerning the honeymoon that's worth passing on.

It seems Dave and his bride went to Rhinelander, Wisconsin (which is somewhere in the forest not far from Canada). And believe us, there's enough solitude there to give any man a chance to prove a good companion. There isn't even a fire department. Which is where the story comes in.

Just because there was no fire department, Mr. O'Brien had to become that missing adjunct of civilization, and single-handed, fight a fire in an adjoining cabin, rescue all of the furniture, and earn the undying gratitude of the owner, and the hero-worship of his loving spouse. We might say that never has a more opportune blaze happened to anyone. For it gave to a new husband the chance to prove himself a hero to his mate.

But reading some of O'Brien's stories we wonder if, just by chance, all this hero stuff wasn't one of those clever "situations" he pulls out of the hat to make Hector Squinch look like Alexander The Great?

Has anybody got a match?



"It's really only a water pistol, but does it scare hell out of people!"

By the way, concerning Burroughs, have you been following the Carson of Venus stories in our companion magazine, *Fantastic Adventures?* You can't afford to miss them, we assure you. Better drop over to your newsstand and get the November issue which features a Burroughs novel.

DAVID V. REED, whose "Kid Poison" proved to be a hit with you, comes back in this issue with the most unusual story you've ever read. It's the oldest theme in science fiction, invasion from another dimension, but what a twist! Don't fail to read "The World of Miracles."

Incidentally, we predict a grand treat in store for you. Author Reed has given us a complete novel that has more punch than anything he's written to date—which is enough recommendation to carry any boast we might make, take it from Sweeney!

THIS is the month we bring back an old favorite — and we produce him right out of the hell of bombardment that is London today. It is Don Hargreaves, likable little hero of the Martian inner world, authored by Festus Pragnell.

This is another fine yarn by an author who has a really distinctive style and appeal in all his works.

THIS issue features the last of the John Carter stories, by Edgar Rice Burroughs. The series has proved very popular and we appreciate your letters on them. And beginning in our December issue, we will begin publication of a new series concerning the world inside the earth, Pellucidar. We know you'll enjoy them.

READER RODNEY MORSE PALMER dropped in on us as we were writing this, and he said: "I didn't think you editors and writers were such swell guys. I thought you'd be about fifty years old and cold as icicles."

Heck no, Rod, we ain't stuffed shirts!

(Concluded on page 107)

ADVERTISEMENT

DO WE HAVE TO DIE?

Is there a Power within that can give Health, Youth, Happiness, Success?

Can we cast off all fear, negation, failure, worry, poverty and disease? Can we reach those mental and spiritual heights which at present appear unattainable? To these eternal questions, the answers given by Edwin J. Dingle, Fellow of the Royal Geographical Society, are unusual. He reveals the story of a remarkable system of mind and body control that often leads to almost unbelievable improvement in power of mind, achievement of business and professional success, and new happiness. Many report improvement in health. Others tell of magnetic personality, courage and poise.

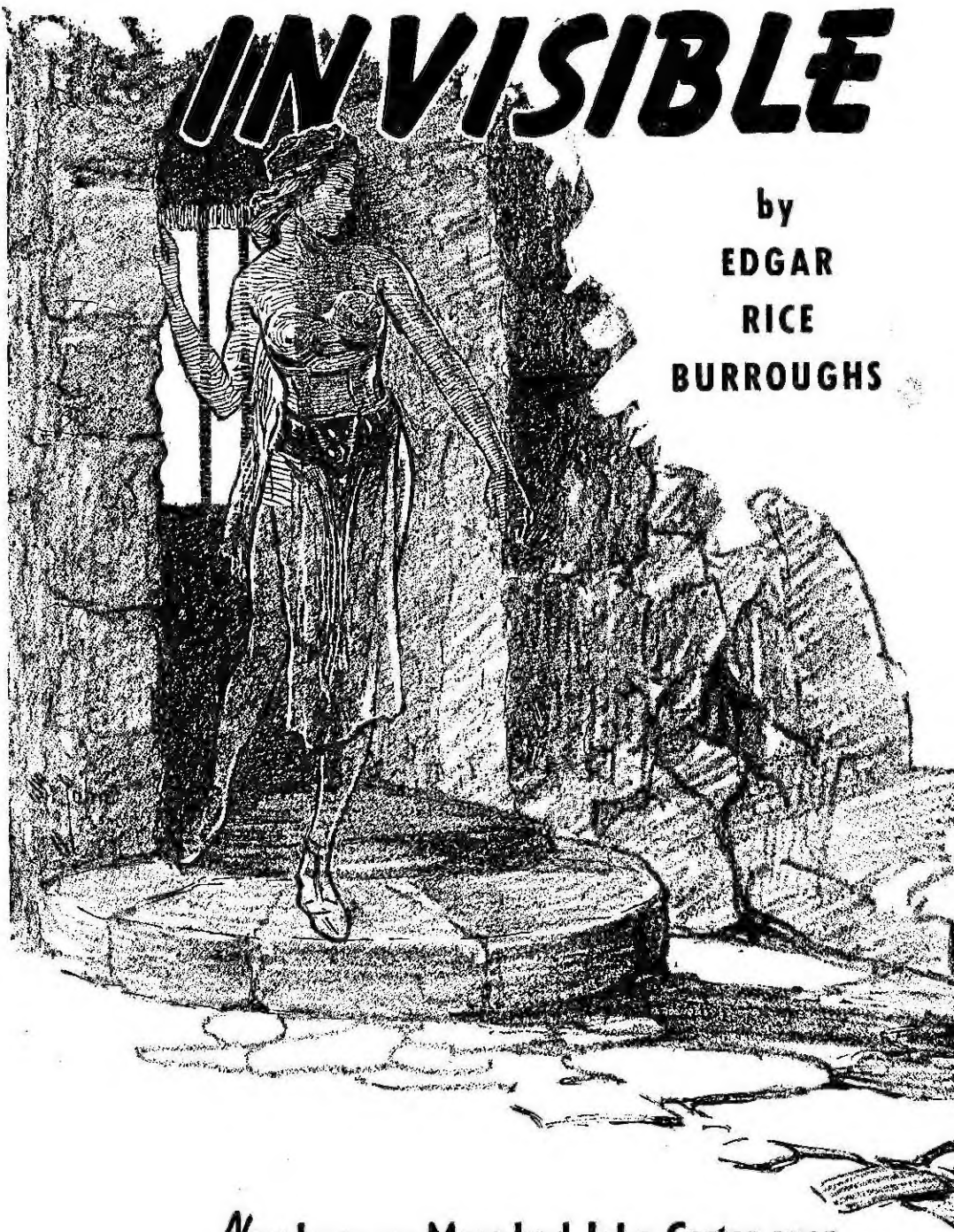
The method was found in remote and mysterious Tibet; formerly a forbidden country, rarely visited by outsiders, and often called the land of miracles in the astounding books written about it. Here, behind the highest mountains in the world, Mr. Dingle learned the extraordinary system he is now disclosing to the Western World.

He maintains that all of us are giants in strength and mind-power, capable of surprising feats. From childhood, however, we are hypnotized, our powers put to sleep, by the suggestions of associates, by what we read, and by various other experiences. To realize their really marvelous powers, men and women must escape from this hypnotism. The method found by Mr. Dingle in Tibet is said to be remarkably instrumental in freeing the mind of the hypnotizing ideas that paralyze the giant powers within us.

A nine-thousand word treatise revealing many startling results of this system is now being offered by the Institute of Mentalphysics, 213 South Hobart Blvd., Dept. 39E, Los Angeles, Calif. They offer to send it free to any readers who quickly send their names and addresses. Readers are urged to write them promptly, as only a limited number of the free treatises have been printed.

INVISIBLE

by
EDGAR
RICE
BURROUGHS



Nowhere on Mars had John Carter ever faced a more dangerous situation—for here were keen swords pitted against him that he could not see, because the men he fought were invisible.

MEN OF MARS

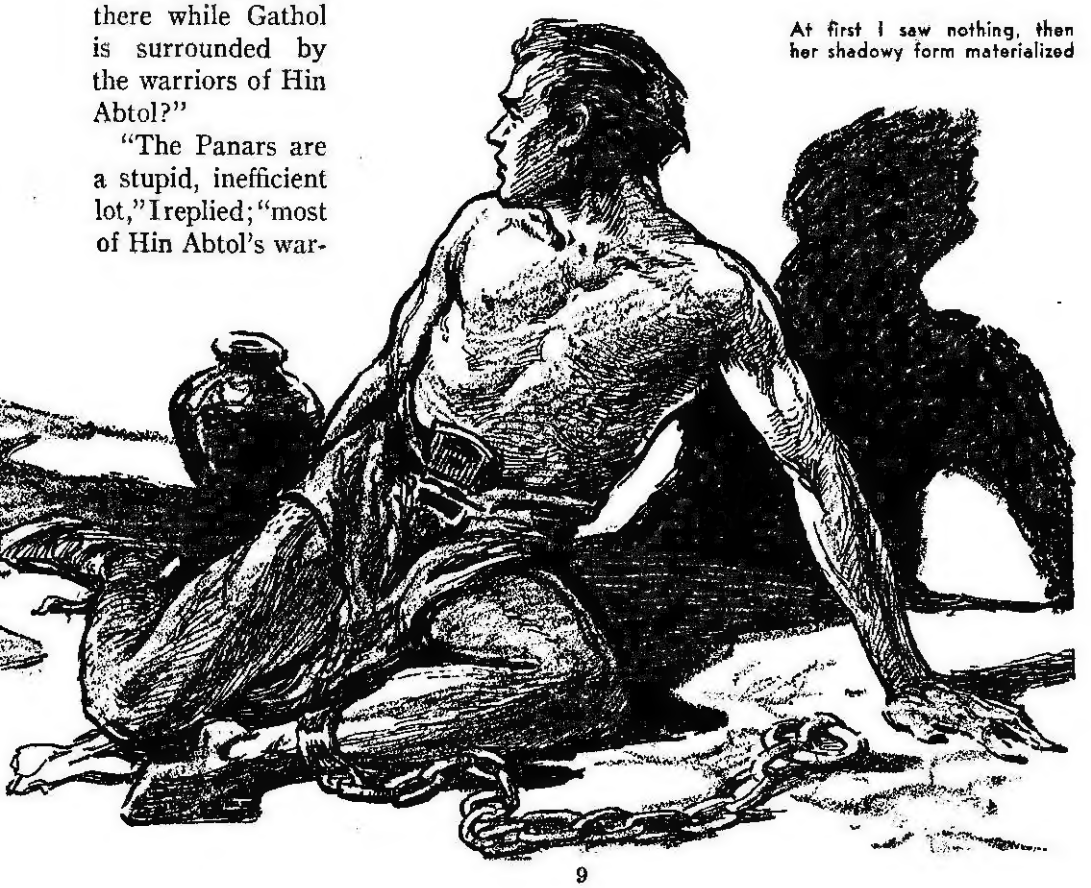
"SOON we will be in Gathol," I said to Llana of Gathol. I had brought her from captivity in the Arctic city of Pankor, stolen her from under the very nose of Hin Abtol, the self-styled Jeddak of Jeddaks of the North; and we were speeding through the thin air of dying Mars in my own fast flier toward Gathol.

"To Gathol?" asked Llana. "Nothing would make me happier than to return to my father, my mother, and my native city; but how may we hope to make a landing there while Gathol is surrounded by the warriors of Hin Abtol?"

"The Panars are a stupid, inefficient lot," I replied; "most of Hin Abtol's warriors are unwilling conscripts who have no heart in waging war for their tyrannical master. These poor frozen men only endure it because they know there is no escape and prefer life and consciousness to being returned to Pankor and frozen in again until Hin Abtol needs their swords for a future war."

"'Frozen men'!" ejaculated Llana; "what do you mean by that?"

"You heard nothing of them while you were a prisoner in Pankor?" I asked, surprised.



At first I saw nothing, then her shadowy form materialized

"Nothing," Llana assured me; "tell me about them."

"Just outside the walls of the hothouse city there are rows upon rows of racks in the biting cold and bitter wind of the North Polar region. On these racks, like beef in a cold storage warehouse, thousands of warriors hang by their feet, frozen solid and in a state of suspended animation. They are captives whom he has taken on numerous raids during a period of fully a hundred years. I have talked with some who had been frozen in over fifty years.

"I was in the resuscitating room when a number of them were thawed out; after a few minutes they don't seem to be any worse for their experience, but the whole idea is revolting."

"Why does he do it?" demanded Llana. "Why thousands of them?"

"Better say thousands upon thousands," I said; "one slave told me that there were at least a million. Hin Abtol dreams of conquering all of Barsoom with them."

"How grotesque!" exclaimed Llana.

"Were it not for the navy of Helium, he might go far along the road toward the goal of his grandiose ambition; and you may thank your revered ancestors, Llana, that there is a navy of Helium. After I return you to Gathol, I shall fly to Helium and organize an expedition to write finis to Hin Abtol's dreams."

"I wish that before you do that we might try to find out what has become of Pan Dan Chee and Jad-han," said Llana; "the Panars separated us shortly after we were captured."

"They may have been taken to Pankor and frozen in," I suggested.

"Oh, no!" exclaimed Llana; "that would be too terrible."

"YOU are very fond of Pan Dan Chee, aren't you?" I asked.

"He has been a very good friend," she replied, a little stiffly. The stubborn minx wouldn't admit that she was in love with him—and possibly she wasn't; you never can tell anything about a woman. She had treated him abominably when they were together; but when they were separated and he was in danger, she had evinced the greatest concern for his safety.

"I don't know how we can learn anything about his fate," I said, "unless we can inquire directly of the Panars; and that might prove rather dangerous. I should like to know what has become of them and Tan Hadron of Hastor as well."

"Tan Hadron of Hastor? Where is he?"

"The last I saw of him, he was on board the Dusar, the Panar ship I stole from their line outside Gathol; and he was the prisoner of the mutinous crew that took it from me. There were a lot of assassins among them, and these were determined to kill Tan Hadron as soon as he had taken the ship to whatever destination they had decided upon; you see, none of the crew knew anything about navigation."

"Tan Hadron of Hastor," said Llana again; "his mother was a royal princess of Gathol and Tan Hadron himself one of the greatest fighting men of Barsoom."

"A splendid officer," I added.

"Steps must be taken to save him, too."

"If it is not too late," I said; "and the only chance of saving any of them lies in my reaching Helium in time to bring a fleet to Gathol before Hin Abtol succeeds in reducing it, and then on to Pankor, if we do not find these three among Hin Abtol's prisoners at Gathol."

"Perhaps we had better fly direct to Helium," suggested Llana. "A fleet

from Helium could accomplish something, while we two, alone, might accomplish no more than getting ourselves captured again by the Panars—and it would go hard with you, John Carter, if Hin Abtol ever got his hands on you again, after what you did in Pankor today." She laughed. "I shall never forget what you did to Rab-zov, 'the strongest man in Pankor'."

"Neither will Rab-zov," I said.

"Nor Hin Abtol. And the hole you made in the glass dome covering the city, when you drove the flier right through it! I'll wager they all had chills before they got that patched up. No, Hin Abtol will never forget you."

"But he never knew who I really was," I reminded Llana; "with my disguise removed, I am no longer a red man; and he might never guess that he had once had John Carter in his power."

"The results would be the same as far as you are concerned," said Llana; "I think it would be death in either event."

BEFORE we had come far from Pankor I decided that our wisest course would be to proceed directly to Helium and enlist the aid of Tardos Mors, the jeddak. While I hold the titles of Jeddak of Jeddaks and Warlord of Barsoom, conferred upon me by the jeddaks of five nations, I have always considered them largely honorary, and have never presumed to exercise the authority implicit in them, except in times of war when even the great jeddak of Helium has graciously served under me.

Having reached the decision to fly to Helium rather than Gathol, I turned toward the southeast. Before us lay a journey half the distance around the planet, and we were absolutely without water or provisions.

Soon the towers and stately ruins of Horz were visible, reminding us both of the circumstances under which we had met Pan Dan Chee, and I thought that Llana looked down a little sadly on that long dead city from which her lost lover had been self-exiled because of us. It was here that she had escaped from Hin Abtol, and it was here that Hin Abtol had stolen this very flier of mine that I had found and recovered in his Polar capital. Yes, Horz held many memories for both of us; and I was glad when it lay behind us.

Far ahead lay Dusar where water and provisions might be obtained, but the friendliness of Dusar was open to question. It had not been so many years since Carthoris, the Prince of Helium, had almost been done to death there by Astok, son of Nutus, the jeddak of Dusar; and there had been no intercourse between Helium and Dusar since that time. Beyond Dusar was no friendly city all the way to Helium.

I decided to give Dusar a wide berth, and in doing so we flew over country with which I was entirely unfamiliar. It was a hilly country; and in a long, deep valley I saw one of those rarest of all sights on Mars, a splendid forest. Now, to me a forest means fruits and nuts and, perhaps, game animals; and we were hungry. There would doubtless be mantalia plants too, the sap of which would quench our thirst; and so I decided to land. My better judgment told me that it was a risky thing to do, and subsequent events proved that my judgment was wholly correct.

CHAPTER II

Voices Out of Nowhere

I LANDED on level ground close to the forest, and telling Llana to remain aboard the flier ready to take off at a moment's notice, I went in search of food. The forest consisted principally

of skeel, sorapus, and sompus trees. The first two are hardwood trees bearing large, delicious nuts, while the sompus trees were loaded with a citrus-like fruit with a thin red rind. The pulp of this fruit, called somp, is not unlike grapefruit, though much sweeter. It is considered a great delicacy among Barsoomians, and is cultivated along many of the canals. I had never seen any, however, as large as these growing wild; nor had I ever seen trees on Mars of the size of many of those growing in this hidden forest.

I had gathered as much of the fruit and as many nuts as I could carry, when I heard Llana calling me. There was a note of excitement and urgency in her voice, and I dropped all that I had gathered and ran in the direction of the flier. Just before I came out of the forest I heard her scream; and as I emerged, the flier rose from the ground.

I ran toward it as fast I can run, and that is extremely fast under the conditions of lesser gravity which prevail on Mars. I took forty or fifty feet in a leap, and then I sprang fully thirty feet into the air in an effort to seize the rail of the flier. One hand touched the gunwale; but my fingers didn't quite close over the rail, and I slipped back and fell to the ground. However, I had had a glimpse of the deck of the flier, and what I saw there filled me with astonishment and, for some reason, imparted that strange sensation to my scalp as though each separate hair were standing erect—Llana lay on the deck absolutely alone, and there was no one at the controls!

"A noble endeavor," said a voice behind me; "you can certainly jump."

I wheeled about, my hand flying to the hilt of my sword. There was no one there! I looked toward the forest; there was no sign of living thing about me. From behind me came a laugh—a taunting, provocative laugh. Again I wheeled. As far as I could see there was only the peaceful Martian landscape. Above me, the flier circled and disappeared beyond the forest—flown with no human hand at the controls by some sinister force which I could not fathom.

"Well," said a voice, again behind me, "we might as well be on our way. You realize, I presume, that you are our prisoner."

"I realize nothing of the sort," I retorted. "If you want to take me, come and get me—come out in the open like men; if you are men."

"Resistance will be futile," said the voice; "there are twenty of us and only one of you."

"Who are you?" I demanded.

"Oh, pardon me," said the voice, "I should have introduced myself. I am Pnoxus, son of Ptantus, jeddak of Invak; and whom have I had the honor of capturing?"

"You haven't had the honor of capturing me yet," I said. I didn't like that voice—it was too oily and polite.

"You are most unco-operative," said the voice named Pnoxus. "I should hate to have to adopt unpleasant methods with you." The voice was not so sweet now; there was just a faint ring of steel in it.

"I don't know where you're hiding," I said; "but if you'll come out, all twenty of you, I'll give you a taste of steel. I have had enough of this foolishness."

"And I've had enough," snapped the voice. Somehow it sounded like a bear trap to me—all the oily sweetness had gone out of it. "Take him, men!"

I LOOKED quickly around for the men, but I was still alone—just a voice and I were there. At least that is what I thought until hands seized my ankles and jerked my feet from beneath

me. I fell flat on my face, and what felt like half a dozen heavy men leaped on my back and half a dozen hands ripped my sword from my grasp and more hands relieved me of my other weapons. Then unseen hands tied my own behind my back and others fastened a rope around my neck, and the voice said:

"Get up!"

I got up. "If you come without resistance," said the voice named Pnoxus, "it will be much easier for you and for my men. Some of them are quite short tempered, and if you make it difficult for them you may not get to Invak alive."

"I will come," I said, "but where? For the rest, I can wait."

"You will be led," said Pnoxus, "and see that you follow where you're led. You've already given me enough trouble."

"You won't know what trouble is until I can see you," I retorted.

"Don't threaten; you have already stored up enough trouble for yourself."

"What became of the girl who was with me?" I demanded.

"I took a fancy to her," said Pnoxus, "and had one of my men, who can fly a ship, take her on to Invak."

I cannot tell you what an eerie experience it was being led through that forest by men that I could not see and being talked to by a voice that had no body; but when I realized that I was probably being taken to the place that Llana of Gathol had been taken, I was content, nay, anxious, to follow docilely where I was led.

I could see the rope leading from my neck out in front of me; it fell away in a gentle curve as a rule and then gradually vanished, vignette-like; sometimes it straightened out suddenly, and then I would feel a jerk at the back of my neck; but by following that ghostly rope-end as it wound among the trees of the forest and watching the bight carefully, so as to anticipate a forthcoming jerk by the straightening of the curve, I learned to avoid trouble.

In front of me and behind I continually heard voices berating other voices: "Sense where you're going, you blundering idiot," or "Stop stepping on my heels, you fool," or "Who do you think you're bumping into, son-of-a-calot!" The voices seemed to be constantly getting in one another's way. Serious as I felt my situation might be, I could not help but be amused.

Presently I felt an arm brush against mine, or at least it felt like an arm, the warm flesh of a bare arm; it would touch me for an instant only to be taken away immediately, and then it would touch me again in a regular measured cadence, as might the arms of two men walking out of step side by side; and then a voice spoke close beside me, and I knew that a voice was walking with me.

"We are coming to a bad place," said the voice; "you had better take my arm."

I groped out with my right hand and found an arm that I could not see. I grasped what felt like an upper arm, and as I did so *my right hand disappeared!* Now, my right arm ended at the wrist, or at least it appeared to do so; but I could feel my fingers clutching that arm that I could not see. It was a most eerie sensation.

ALMOST immediately we came to an open place in the forest, where no trees grew. The ground was covered with tiny hummocks, and when I stepped on it it sank down a few inches. It was like walking on coil springs covered with turf.

"I'll guide you," said the voice at my side. "If you should get off the trail here alone you'd be swallowed up.

The worst that can happen to you now would be to get one leg in it, for I can pull you out before it gets a good hold on you."

"Thank you," I said; "it is very decent of you."

"Think nothing of it," replied the voice; "I feel sorry for you; I am always sorry for strangers whom Fate misguides into the forest of Invak. We have another name for it which, I think, better describes it—The Forest of Lost Men."

"Is it really so bad to fall into the hands of your people?" I asked.

"I am afraid that it is," replied the voice; "there is no escape."

I had heard that one before; so it didn't impress me greatly. The lesser peoples of Barsoom are great braggarts; they always have the best swordsmen, the finest cities, the most outstanding culture; and once you fall into their hands, you are always doomed to death or a life of slavery—you can never escape them.

"May I ask you a question?" I inquired.

"Certainly," said the voice.

"Are you always only a voice?"

A hand, I suppose it was his right hand, seized my arm and squeezed it with powerful, though invisible, fingers; and whatever it was that walked beside me chuckled. "Does that feel like only a voice?" it asked.

"A stentorian voice," I said. "You seem to have the physical attributes of a flesh and blood man; have you a name?"

"Most assuredly; it is Kandus; and yours?" he asked politely.

"Dotar Sojat," I told him, falling back upon my well-worn pseudonym.

We had now successfully crossed the bog, or whatever it was; and I removed my hand from Kandus's arm. Immediately I was wholly visible again, but Kandus remained only a voice. Again I walked alone, I and a rope sticking out in front of me and apparently defying the law of gravity. Even the fact that I surmised that the other end of it was fastened to a voice did not serve to make it seem right; it was a most indecent way for a rope to behave.

" 'Dotar Sojat'," repeated Kandus; "it sounds more like a green man's name."

"You are familiar with the green men?" I asked.

"Oh, yes; there is a horde which occasionally frequents the dead sea bottoms beyond the forest; but they have learned to give us a wide berth. Notwithstanding their great size and strength, we have a distinct advantage over them. As a matter of fact, I believe that they are very much afraid of us."

"I can well imagine so; it is not easy to fight voices; there is nothing one may get one's sword into."

Kandus laughed. "I suppose you would like to get your sword into me," he said.

"Absolutely not," I said; "you have been very decent to me, but I don't like that voice which calls itself Pnoxus; I wouldn't mind crossing swords with it."

"Not so loud," cautioned Kandus. "You must remember that he is the jeddak's son. We all have to be very nice to Pnoxus—no matter what we may privately think of him."

I JUDGED from that that Pnoxus was not popular. It is really amazing how quickly one may judge a person by his voice; this had never been so forcibly impressed upon me before. Now, I had disliked the Pnoxus voice from the first, even when it was soft and oily, perhaps because of that; but I had liked the voice named Kandus—it was the voice of a man's man, open

and without guile; a good voice.

"Where are you from, Dotar Sojat?" asked Kandus.

"From Virginia," I said.

"That is a city of which I have never heard. In what country is it?"

"It is in the United States of America," I replied, "but you never heard of that either."

"No," he admitted; "that must be a far country."

"It is a far country," I assured him, "some forty-three million miles from here."

"You can talk as tall as you jump," he said. "I don't mind your joking with me," he added, "but I wouldn't get funny with Pnoxus, nor with Ptantus, the jeddak, if I were you; neither one of them has a sense of humor."

"But I was not joking," I insisted. "You have seen Jasoom in the heavens at night?"

"Of course," he replied.

"Well, that is the world I come from; it is called Earth there, and Barsoom is known as Mars."

"You look and talk like an honorable man," said Kandus; "and, while I don't understand, I am inclined to believe; however, you'd better pick out some place on Barsoom as your home when anyone else in Invak questions you; and you may soon be questioned—here we are at the gates of the city now."

CHAPTER III

A City of Invisible Men

INVAK! The city in the Forest of Lost Men. At first only a gate was visible, so thickly set were the trees that hid the city wall—the trees and the vines that covered the wall.

I heard a voice challenge as we approached the gate, and I heard Pnoxus' voice reply, "It is Pnoxus, the prince, with twenty warriors and a prisoner."

"Let one advance and give the countersign," said the voice.

I was astonished that the guard at the gate couldn't recognize the jeddak's son, nor any of the twenty warriors with him. I suppose that one of the voices advanced and whispered the countersign, for presently a voice said, "Enter, Pnoxus, with your twenty warriors and your prisoner."

Immediately the gates swung open, and beyond I saw a lighted corridor and people moving about within it; then my rope tightened and I moved forward toward the gate; and ahead of me, one by one, armed men suddenly appeared just beyond the threshold of the gateway; one after another they appeared as though materialized from thin air and continued on along the lighted corridor. I approached the gate apparently alone, but as I stepped across the threshold there was a warrior at my side where the voice of Kandus had walked.

I looked at the warrior, and my evident amazement must have been written large upon my face, for the warrior grinned. I glanced behind me and saw warrior after warrior materialize into a flesh and blood man the moment that he crossed the threshold. I had walked through the forest accompanied only by voices, but now ten warriors walked ahead of me and ten behind and one at my side.

"Are you Kandus?" I asked this one.

"Certainly," he said.

"How do you do it?" I exclaimed.

"It is very simple, but it is the secret of the Invaks," he replied. "I may tell you, however, that we are invisible in daylight, or rather when we are not illuminated by these special lamps which light our city. If you will notice the construction of the city as we proceed, you will see that we take full ad-

vantage of our only opportunity for visibility."

"Why should you care whether other people can see you or not?" I asked "Is it not sufficient that you can see them and yourselves?"

"Unfortunately, there is the hitch," he said. "We can see you, but we can't see each other any more than you can see us."

So that accounted for the grumbling and cursing I had heard upon the march through the forest—the warriors had been getting in each other's way because they couldn't see one another any more than I could see them.

"You have certainly achieved invisibility," I said, "or are you hatched invisible from invisible eggs?"

"No," he replied, "we are quite normal people; but we have learned to make ourselves invisible."

JUST then I saw an open courtyard ahead of us, and as the warriors passed out of the lighted corridor into it they disappeared. When Kandus and I stepped out, I was walking alone again. It was most uncanny.

The city was spotted with these courtyards which gave ventilation to the city which was, otherwise, entirely roofed and artificially lighted by the amazing lights which gave complete visibility to its inhabitants. In every courtyard grew spreading trees, and upon the city's roof vines had been trained to grow; so that, built as it was in the center of the Forest of Lost Men, it was almost as invisible from either the ground or the air as were its people themselves.

Finally we halted in a large courtyard in which were many trees wherein iron rings were set with chains attached to them, and here invisible hands snapped around one of my ankles a shackle that was fastened to the end of one of these chains.

Presently a voice whispered in my ear, "I will try to help you, for I have rather taken a liking to you –you've got to admire a man who can jump thirty feet into the air; and you've got to be interested in a man who says he comes from another world forty-three million miles from Barsoom."

It was Kandus. I felt that I was fortunate in having even the suggestion of a friend here, but I wondered what good it would do me. After all, Kandus was not the jeddak; and my fate would probably rest in the hands of Ptantus.

I could hear voices crossing and recrossing the courtyard. I could see people come down the corridors or streets and then fade into nothingness as they stepped out into the courtyard. I could see the backs of men and women appear quite as suddenly in the entrances to the streets as they left the courtyard. On several occasions voices stopped beside my tree and discussed me. They commented upon my light skin and grey eyes. One voice mentioned the great leap into the air that one of my captors had recounted.

Once a delicate perfume stopped near me, and a sweet voice said, "The poor man, and he is so handsome!"

"Don't be a fool, Rojas," growled a masculine voice. "He is an enemy, and anyway he's not very good-looking."

"I think he is very good-looking," insisted the sweet voice, "and how do you know he's an enemy?"

"I was not an enemy when I brought my ship down beside the forest," I said, "but the treatment I have received is fast making one of me."

"There, you see," said the sweet voice; "he was not an enemy. What is your name, poor man?"

"My name is Dotar Sojat, but I am not a 'poor man,'" I replied with a laugh.

"That may be what you think," said the masculine voice. "Come on, Rojas, before you make any bigger fool of yourself."

"If you'll give me a sword and come out of your cowardly invisibility, I'll make a fool of you, calot," I said.

An invisible, but very material, toe kicked me in the groin. "Keep your place, slave!" growled the voice.

I LUNGED forward and, by chance, got my hands on the fellow; and then I held him by his harness for just long enough to feel for his face, and when I had located it I handed him a right upper-cut that must have knocked him half way across the courtyard.

"That," I said, "will teach you not to kick a man who can't see you."

"Did Motus kick you?" cried the sweet voice, only it wasn't so sweet now; it was an angry voice, a shocked voice. "You looked as though you were hitting him—I hope you did."

"I did," I said, "and you had better see if there is a doctor in the house."

"Where are you, Motus?" cried the girl.

There was no response; Motus must have gone out like a light. Pretty soon I heard some lurid profanity, and a man's voice saying, "Who are you, lying around here in the courtyard?" Some voice had evidently stumbled over Motus.

"That must be Motus," I said in the general direction from which the girl's voice had last come. "You'd better have him carried in."

"He can lie there until he rots, for all I care," replied the voice as it trailed away. Almost immediately I saw the slim figure of a girl materialize in the entrance to one of the streets. I could tell from her back that she was an angry girl, and if her back were any criterion she was a beautiful girl—anyway, she had had a beautiful voice and a good heart. Perhaps these Invaks weren't such bad people after all.

CHAPTER IV

An Old Friend

"THAT was a beauty that you handed Motus," said a voice behind me

I wasn't going to bother even to turn around. What was the use of turning around and seeing no one there? But when the voice said, "I'll bet he's out for a week, the dirty Invak calot," I did turn around, for I knew no Invak had made a remark like that.

Chained to a tree near me, I saw another red man (it is strange that I should always think of myself as a red man here on Barsoom; and yet, perhaps, not so strange after all. Except for my color, I *am* a red man—a red man in thought and feeling to the marrow of my bones. I no longer ever think of myself as a Virginian, so ingrained has become my love for this world of my adoption).

"Well, where did *you* come from?" I demanded. "Are you one of the invisibles?"

"I am not," replied the man. "I have been here all along. When you were first brought I must have been asleep behind my tree, but the people stopping to comment on you awoke me. I heard you tell the girl that your name is Dotar Sojat. That is a strange name for a red man. Mine is Ptor Fak; I am from Zodanga."

Ptor Fak! I recalled him now; he was one of the three Ptor brothers who had befriended me that time that I had wished to enter Zodanga in search of Dejah Thoris. At first I hesitated to tell him who I really was; but then, knowing him to be an honorable man, I was about to when he suddenly ex-

claimed, "By the mother of the nearer moon! Those eyes, that skin!"

"S-h-h!" I cautioned. "I don't know the nature of these people yet, and so I thought it wiser to be Dotar Sojat."

"If you're not Dotar Sojat, who are you?" demanded a voice at my elbow. That's the trouble with this invisibility business—a man can sneak up on you and eavesdrop, and you haven't the slightest idea that there is anyone near you.

"I am the Sultan of Swat," I said, that being the first name that popped into my head.

"What's a sultan?" demanded the voice.

"A jeddak of jeddaks," I replied.

"In what country?"

"In Swat."

"I never heard of Swat," said the voice.

"Well, now that it's out, you had better tell your jeddak that he's got a sultan chained up here in his back yard."

THE voice must have gone away, for I heard it no more. Ptor Fak was laughing. "I can see that things are going to brighten up a bit now that you are here," he said; "my deepest reverence for whichever one of your ancestors gave you a sense of humor. This is the first laugh I have had since they got me."

"How long have you been here?"

"Several months. I was trying out a new motor that we have developed in Zodanga and was trying to establish a record for a circumnavigation of Barsoom at the Equator, and of course this place had to be on the Equator and right under me when my motor quit. How did you get here?"

"I had just escaped from Pankor with Llana, daughter of Gahan of Gathol, and we were on our way to Helium to bring back a fleet to teach Hin Abtol a lesson. We had neither food nor water on our flier; so I landed beside this forest to get some. While I was in the forest, one of these Invaks, invisible of course to Llana, climbed aboard the flier and took off with her; and twenty more of them jumped on me and took me prisoner."

"A girl was with you! That is too bad. They may kill us, but they'll keep her."

"Pnoxus said that he had taken a fancy to her," I said, bitterly.

"Pnoxus is a calot and the son of a calot and the grandson of a calot," said Ptor Fak, illuminatingly. Nothing could have evaluated Pnoxus more concisely.

"What will they do with us?" I asked. "Will we have any opportunity to escape that might also give me an opportunity to take Llana away?"

"Well, as long as they keep you chained to a tree, you can't escape; and that's what they've done with me ever since I've been here. I think they intended to use us in some sort of Games, but just what they are I don't know. Look!" he exlaimed, pointing and laughing.

I looked in the direction he indicated and saw two men carrying the limp form of a third down one of the streets.

"That must be Motus," said Ptor Fak. "I am afraid that may get you into trouble," he added, suddenly sobered.

"Whatever trouble it gets me into, it was worth it," I said. "Think of kicking a blind man, and that's what it amounted to. The girl was as mad about it as I; she must be a good sort. Rojas —that's rather a pretty name."

"The name of a noblewoman," said Ptor Fak.

"You know her?" I asked.

"No, but you can tell by the endings of their names whether or not they are

noble and by the beginnings and endings of their names if they're royal. The names of the noblemen end in us and the names of noblewomen in as. The names of royalty end the same way but always begin with two consonants, like Pnoxus and Ptantus."

"Then Motus is a nobleman," I said.

"Yes; that is what is going to make it bad for you."

"TELL me," I said; "how do they make themselves invisible?"

"They have developed something that gives them invisibility for perhaps a day; it is something they take internally—a large pill. I understand that they take one every morning, so as to be sure that they will be invisible if they have to go outside the city. You see it takes about an hour for the stuff to work, and if the city were attacked by an enemy they'd be in a bad way if they had to go out and fight while visible. They are also working on a mechanical way to make themselves invisible, to eliminate the waiting period while the pills take effect."

"What enemies can they have around here?" I asked. "Kandus told me that even the green men are afraid of them."

"There is another city in the forest inhabited by an offshoot of this tribe," explained Ptor Fak; "it is called Onvak, and its people also possess the secret of invisibility. Occasionally the Onvaks come and attack Invak, or lie in wait for the Invak hunting parties when they go out into the forest."

"I should think it might be rather difficult to fight a battle in which one could see neither foe nor friend," I suggested.

"Yes; I understand that there's never very much damage done, though occasionally they capture a prisoner. The last battle they had the Invaks took two prisoners, and when they got them into the city they discovered that they were both their own men. They never know how many of their own people they kill; they just go slashing about them with their swords, and Issus help whoever gets in the way."

Just as Ptor Fak finished speaking I felt hands doing something to the shackles about my ankles and presently it was unlocked and removed.

"Come, slave," said the voice. Then someone took me by the arm and led me toward the entrance to one of the streets.

The moment we entered I could see a warrior at my side and there were others in front and behind me. They conducted me along this street through two other courtyards in which, of course, they immediately became invisible and I seemed to be walking alone with only the pressure of a hand upon my arm to indicate that I was not. They took me to a large room in which a number of people were standing about in front of and on either side of a desk at which there sat a scowling, fierce visaged man.

I was led up to the desk and halted there and the man behind it surveyed me in silence for several seconds. His harness was extremely elaborate, the leather being beautifully carved and studded with precious stones. The hilt of his sword which I could just see above the desk was apparently of gold and it too was studded with those rare and beautiful gems of Barsoom which defy description in words of earthly origin. Encircling his brow was a diadem of carved leather upon the front of which the Barsoomian hieroglyphs which spelled jeddak were emblazoned in precious stones.

So this man was Plantus, jeddak of Invak. I realized that Llana and I could not have fallen into much worse hands.

CHAPTER V

Ptantus, the Jeddak

PTANTUS looked at me so ferociously that I was sure he was attempting to frighten me. It seems to be a way that tyrants and bullies have of attemping to break down the morale of a victim before they destroy him; but I was not greatly impressed; and, impelled by a rather foolish desire to annoy him, I stopped looking at him. I guess that got his goat for he thumped the desk with his fist and leaned forward across it.

"Slave!" he almost roared at me, "pay attention to me."

"You haven't said anything yet," I reminded him. "When you say anything worth listening to I shall listen, but you don't have to yell at me."

He turned angrily to an officer. "Don't ever dare to bring a prisoner before me again," he said, "until he has been instructed how to behave in the presence of a jeddak."

"I know how to behave in the presence of a jeddak," I told him. "I have been in the presence of some of the greatest jeddaks on Barsoom, and I treat a jeddak just as I treat any other man—as he deserves. If he is a nobleman at heart he has my deference, if he is a boor he does not."

The inference was clear, and Ptantus colored. "Enough of your insolence," he said. "I understand that you are a troublesome fellow, that you gave Pnoxus, the prince, a great deal of trouble after your capture and that you struck and badly injured one of my nobles."

"That man may have a title," I said, "but he is no noble; he kicked me while he was invisible—it was the same as kicking a blind man."

"That is right," said a girlish voice a little way behind me and at one side. I turned and looked. It was Rojas.

"You saw this thing done, Rojas?" demanded Ptantus.

"Yes, Motus insulted me; and this man, Dotar Sojat, berated him for it. Then Motus kicked him."

"Is this true, Motus?" asked Ptantus, turning his head and looking past me on the other side. I turned and glanced in that direction and saw Motus with his face swathed in bandages; he was a sorry looking sight.

"I gave the slave what he deserves," he growled; "he is an insolent fellow."

"I quite agree with you," said Ptantus, "and he shall die when the time comes. But I did not summon him here to conduct a trial. I, the jeddak, reach my decisions without testimony or advice. I sent for him because an officer said he could leap thirty feet into the air; and if he can do that it may be worth keeping him awhile for my amusement."

I couldn't help but smile a little at that for it had been my ability to jump that had probably preserved my life upon my advent to Barsoom so many years ago, when I had been captured by the green hordes of Thark, and Tars Tarkas had ordered me to ask for the edification of Lorquas Ptomel, the jed, and now it was going to give me at least a short reprieve from death.

"Why do you smile?" demanded Ptantus. "Do you see anything funny in that? Now jump, and be quick about it."

I looked up at the ceiling. It was only about fifteen feet from the floor. "That would be only a hop," I said.

"Well hop then," said Ptantus.

I TURNED and looked behind me. For about twenty feet between me and the doorway men and women were crowded thickly together. Thanking

my great agility and the lesser gravity of Mars, I easily jumped completely over them. I could have made a bolt for the door then, leaped to the roof of the city and made my escape; and I should have done it had it not been that Llana of Gathol was still a prisoner here.

Exclamations of surprise filled the room at this, to them, marvelous feat of agility; and when I leaped back again there was almost a ripple of applause.

"What else can you do?" demanded Ptantus.

"I can make a fool out of Motus with a sword," I said, "as well as with my fists, if he will meet me under the lights where I can see him."

Ptantus actually laughed. "I think I shall let you do that sometime when I am through with you," he said, "for Motus will most certainly kill you. There is probably not a better swordsman on all Barsoom."

"I shall be delighted to let him try it," I said, "and I can promise you that I shall still be able to jump after I have killed Motus. But, if you really want to see some jumping," I continued, "take me and the girl who was captured with me out into the forest, and we will show you something worthwhile." If I could only get outside the gates with Llana I knew that we should be able to get away, for I could outdistance any of them even if I had to carry her.

"Take him back and lock him up," said Ptantus; "I have seen and heard enough for today!" so they took me back into the courtyard and chained me to my tree.

"Well," said Ptor Fak, after he thought the guards had left, " how did you get along?"

I told him all that had transpired in the jeddak's presence, and he said he hoped that I would get a chance to meet Motus, as Ptor Fak well knew my reputation as a swordsman.

After dark that night, a voice came out and sat down beside me. It was Kandus.

"It's a good thing you jumped for Ptantus today," he said, "the old devil thought Pnoxus had been lying to him and after it had been demonstrated that you could not jump Ptantus was going to have you destroyed immediately in a very unpleasant way he has of dealing with those who have aroused his anger or resentment."

"I hope I can keep on amusing him for a while," I said.

"The end will be the same eventually," said Kandus, "but if there is anything I can do to make your captivity easier for you I shall be glad to do it."

"It would relieve my mind if you could tell me what has become of the girl who was captured at the same time that I was."

"SHE is confined in the quarters of the female slaves. It's over on that side of the city beyond the palace," and he nodded in that direction.

"What do you think is going to happen to her?" I asked.

"Ptantus and Pnoxus are quarreling about her," he replied; "they are always quarreling about something; they hate each other. Because Pnoxus wants her Ptantus doesn't want him to have her; and so, for the time being at least, she is safe. I must go now," he added a moment later, and I could tell from the direction of his voice that he had arisen. "If there is anything I can do for you be sure to let me know."

"If you could bring me a piece of wire," I said, "I would appreciate it."

"What do you want of wire?" he asked.

"Just to pass the time," I said; "I bend them around in different shapes and make little figures of them to amuse

myself. I am not accustomed to being chained to a tree, and time is going to hang very heavily on my hands."

"Certainly," he said, "I'll be glad to bring you a piece of wire; I'll be back with it in just a moment, and until then goodby."

"You are fortunate to have made a friend here," said Ptor Fak; "I've been here several months and I haven't made one."

"I think it was my jumping," I said; "it has served me in good stead before and in many ways."

It was not long before Kandus returned with the wire. I thanked him and he left immediately.

It was night now and both moons were in the sky. Their soft light illuminated the courtyard, while the swift flight of Thuria across the vault of heaven swept the shadows of the trees into constantly changing movement across the scarlet sward, turned purple now in the moonlight.

Ptor Fak's chain and mine were sufficiently long to just permit us to sit side by side, and I could see that his curiosity was aroused by my request for a piece of wire by the fact that he kept watching it in my hand. Finally he could contain himself no longer. "What are you going to do with that wire?" he asked.

"You'd be surprised," I said; and then I paused for I felt a presence near me, "at the clever things one may do with a piece of wire."

CHAPTER VI

Rojas Makes An Offer

WERE I to live here in Invak the rest of my life I am sure I could never accustom myself to these uncanny presences, or to the knowledge that someone might always be standing close to me listening to everything that I said to Ptor Fak.

Presently I felt a soft hand upon my arm, and then that same sweet voice that I had heard before said, "It is Rojas."

"I am glad that you came," I said, "I wished an opportunity to thank you for the testimony you gave in my behalf before Ptantus today."

"I'm afraid it didn't do you much good," she replied; "Ptantus doesn't like me."

"Why should he dislike you?" I asked.

"Pnoxus wanted me as his mate and I refused him; so, though Ptantus doesn't like Pnoxus, his pride was hurt, and he has been venting his spleen on my family ever since." She moved closer to me, I could feel the warmth of her arm against mine as she leaned against me. "Dotar Sojat," she said, "I wish that you were an Invak so that you might remain here forever in safety."

"That is very sweet of you, Rojas," I said, "but I am afraid that Fate has ordained it otherwise."

The soft arm stole up around my shoulders. The delicate perfume which had first announced her presence to me that afternoon, filled my nostrils and I could feel her warm breath upon my cheek. "Would you like to stay here, Dotar Sojat," she paused, "—with me?"

The situation was becoming embarrassing. Even Ptor Fak was embarrassed and there were no soft invisible arms about his neck. I knew that he was embarrassed because he had moved away from us the full length of his chain. Of course he couldn't see Rojas any more than I could but he must have heard her words; and, being a gentleman, he had removed himself as far as possible; and now he sat there with his back toward us. Being made

love to by a beautiful girl in a moonlit garden may be romantic, but if the girl is wholely invisible it is like being made love to by a ghost; though I can assure you that Rojas didn't feel like a ghost at all.

"You have not answered me, Dotar Sojat," she said.

I have never loved but one woman—my incomparable Dejah Thoris; nor do I, like some men, run around pretending love for other women. So, as you say in America, I was on a spot. They say that all is fair in love and war; and as far as I was concerned, I, personally, was definitely at war with Invak. Here was an enemy girl whose loyalty I could win or whose bitter hatred I could incur by my reply. Had I had only myself to consider I should not have hesitated, but the fate of Llana of Gathol outweighed all other considerations, and so I temporized.

"No matter how much I should like to be with you always, Rojas," I said, "I know that is impossible. I shall be here only subject to the whims of your jeddak and then death will separate us forever."

"Oh, no, Dotar Sojat," she cried, drawing my cheek close to hers, "you must not die—for I love you."

"But Rojas," I expostulated, "how can you love a man whom you have known for only a few hours and seen but for a few minutes?"

"I knew that I loved you the moment that I set eyes upon you," she replied, "and I've seen you for a great many more than a few minutes. I have been almost constantly in the courtyard since I first saw you, watching you. I know every changing expression of your face. I have seen the light of anger, and of humor, and of friendship in your eyes. Had I known you all my life I could not know you better. Kiss me, Dotar Sojat," she concluded. And, then I did something for which I shall probably always be ashamed. I took Rojas in my arms and kissed her.

DID you ever hold a ghost in your arms and kiss her? It humiliates me to admit that it was not an unpleasant experience. But Rojas clung to me so tightly and for so long that I was covered with confusion and embarrassment.

"Oh, that we could be always thus," sighed Rojas.

Personally I thought that however pleasant it might be a little inconvenient. However, I said, "Perhaps you will come often, Rojas, before I die."

"Oh, don't speak of death," she cried.

"But you know yourself that Ptantus will have me killed—unless I escape!"

"Escape!" She scarcely breathed the word.

"But I suppose there will be no escape for me," I added, and I tried not to sound too hopeful.

"Escape," she said again, "Escape! ah if I could but go with you."

"Why not?" I asked. I had gone this far and I felt that I might as well go all the way if by so doing I could release Llana of Gathol from captivity.

"Yes, why not?" repeated Rojas, "but how?"

"If I could become invisible," I suggested.

She thought that over for a moment and then said, "It would be treason. It would mean death, a horrible death, were I apprehended."

"I couldn't ask that of you," I said, and I felt like a hypocrite for that I knew that I could ask it of her if I thought that she would do it. I would willingly have sacrificed the life of every person in Invak, including my own, if

thereby I could have liberated Llana of Gathol. I was desperate, and when a man is desperate he will resort to any means to win his point.

"I am most unhappy here," said Rojas, in a quite natural and human attempt at self-justification. "Of course, if we were successful," continued Rojas, "it wouldn't make any difference who knew what I had done because they could never find us again. We would both be invisible, and together we could make our way to your country." She was planning it all out splendidly.

"Do you know where the flier is that brought the girl prisoner?" I asked.

"Yes, it was landed on the roof of the city."

"That will simplify matters greatly," I said. "If we all become invisible we can reach it and escape with ease."

"What do you mean 'all'?" she demanded.

"Why I want to take Ptor Fak with me," I said, "and Llana of Gathol who was captured the same time I was."

Rojas froze instantly and her arms dropped from about me. "Not the girl," she said.

"But, Rojas, I must save her," I insisted. There was no reply. I waited a moment and then I said, "Rojas!" but she did not answer, and a moment later I saw her slim back materialize in the entrance to one of the streets opposite me. A slim back surmounted by a defiantly held head. That back radiated feminine fury.

CHAPTER VII

Result of Rojas' Fury

AFTER Rojas left I was plunged almost into the depths of despair. Had she but waited I could have explained everything, and the four of us might have escaped. I will admit that I have never been able to fathom the ways of women, but I felt that Rojas would never return. I presume that my conviction was influenced by those lines from The Mourning Bride, "Heaven has no rage like love to hatred turned, nor hell a fury like a woman scorned."

However, I did not give up hope entirely—I never do. Instead of repining, I went to work on the lock of my shackle with the bit of wire that Kandus had brought me. Ptor Fak moved over to watch me. I sat facing my tree, close to it, and bending over my work, and Ptor Fak leaned close and bent over it too. We were trying to hide from preying eyes the thing that I was attempting to do; and as it was now late at night, we hoped that there would be no one in the courtyard other than ourselves.

At last I found the combination, and after that it took me only a few seconds to unlock Ptor Fak's shackle. Then a voice behind us spoke.

"What are you two doing?" it demanded; "why are you not asleep?"

"How can we sleep with people constantly annoying us?" I asked, hiding the wire beneath me.

"Stand up," said the voice, and as we stood up the shackles fell away from our ankles.

"I thought so," said the voice. Then I saw the piece of wire rise from the ground and disappear. "You are very clever, but I don't think Ptantus will appreciate your cleverness when he hears about this. I shall set a guard to watch you two constantly hereafter."

"Everything is going wrong," I said to Ptor Fak, a moment later, after I saw a warrior enter one of the streets, hoping that it was he who had spoken to us and that there were no others around.

"It seems hopeless, doesn't it?" said Ptor Fak.

"No," I snapped, "not while I still live."

The following afternoon Kandus' voice came and sat down beside me. "How goes it?" he asked.

"Terrible, I said.

"How is that?" he asked.

"I can't tell you," I said, "because there is probably a guard standing right here listening to everything that I say."

"There is no one here but us," said Kandus.

"How do you know? I asked; "your people are as invisible to you as they are to me."

"We learn to sense the presence of others," he explained; "just how I can't tell you."

"How you do it is immaterial," I said, "as long as you are sure there is no one here listening to us. I will be perfectly frank with you, I succeded in removing Ptor Fak's shackle and my own. Someone caught me at it and took the piece of wire away from me." I did not tell Kandus that I had broken the wire he had given me in two and that I still had the other half of it in my pocket pouch. There is no use in telling even a friend everything that you know.

"How in the world could you have hoped to escape even if you could remove your shackles?" he asked.

"It was only the first step," I told him. "We really had no plan, but we knew that we certainly could not escape as long as we were shackled."

Kandus laughed. "There is something in that," he said, and then he was silent for a moment. "The girl who was captured with you," he said presently.

"What of her?" I asked.

"Ptantus has given her to Motus," he replied; "it was all done very suddenly. Why, no one seems to know, because Ptantus hasn't any particular love for Motus."

IF Kandus didn't know why, I thought that I did. I saw Rojas' hand and a green-eyed devil in it—jealously is a heartless monster. "Will you do something more for me, Kandus?" I asked.

"Gladly, if I can," he replied.

"It may seem like a very silly request," I said, "but please don't ask me to explain. I want you to go to Rojas and tell her that Llana of Gathol, the girl that Ptantus has given to Motus, is the daughter of my daughter."*

"Of course I don't understand," said Kandus, "but I'll do what you ask."

"And now another favor," I said. "Ptantus half promised me that he would let me duel with Motus and he assured me that Motus would kill me. Is there any possible way of arranging for that duel to be fought today?"

"He will kill you," said Kandus.

"That is not what I asked," I said.

"I don't know how it could be done," said Kandus.

"Now if Ptantus has any sporting blood," I suggested, "and likes to lay a wager now and then, you bet him that if Motu will fight me while Motus is still visible, that he can not kill me but that I can kill him whenever I choose."

"But you can't do it," said Kandus. "Motus is the best swordsman on Barsoom. You would be killed and I should lose my money."

"How can I convince you," I said.

* It may seem strange to denizens of Earth that Rojas could have become infatuated with a grandfather, but we must remember that Mars is not Earth and that John Carter is unlike all other Earth-men. He does not know how old he is. He recalls no childhood. It seems to him that he looks now as he did when he fought with the Confederate army during the Civil War—a man of about thirty. And on Barsoom, where the natural span of life is around a thousands years and people do not commence to show the ravages of old age until just shortly before dissolution, differences in age do not count. You might fall in love with a beautiful girl upon Barsoom; and, as far as appearances were concerned, she might be seventeen or she might be seven hundred.—Ed.

"I know that I can kill Motus in a fair fight. If I had anything of value, I would give it to you as security for your wager."

"I have something of value," said Ptor Fak, "and I would wager it and everything that I could scrape together on Dotar Sojat." He reached into his pocket pouch and drew forth a gorgeous jewelled medallion. "This," he said to Kandus, "is worth a jeddak's ransom—take it as security and place its value on Dotar Sojat."

A second later the medallion disappeared in thin air, and we knew that Kandus had taken it.

"I'll have to go inside and examine it," said Kandus' voice, "for of course I cannot see it now that it has become invisible. I'll not be gone long."

"That is very decent of you, Ptor Fak," I said; "that medallion must be almost invaluable."

"One of my remote ancestors was a jeddak," explained Ptor Fak; "that medallion belonged to him, and it has been in the family for thousands of years."

"You must be quite certain of my swordsmanship," I said.

"I am," he replied; "but even had I been less certain, I should have done the same."

"That is friendship," I said, "and I appreciate it."

"It is priceless," said a voice at my side, and I knew that Kandus had returned. "I will go at once and see what can be done about the duel."

"Don't forget what I asked you to tell Rojas," I reminded him.

CHAPTER VIII

The Duel Is Arranged

AFTER Kandus left us, time dragged heavily. The afternoon wore on and it became so late that I was positive that he had failed in his mission. I was sitting dejectedly thinking of the fate that was so soon to overtake Llana of Gathol. I knew that she would destroy herself, and I was helpless to avert the tragedy. And, while I was thus sunk in the depths of despair, a hand was placed on mine. A soft hand; and a voice said, "Why didn't you tell me?"

"You didn't give me a chance," I said; "you just ran out on me without giving me a chance to explain."

"I am sorry," said the voice, "and I am sorry for the harm I have done Llana of Gathol; and now I have condemned you to death."

"What do you mean?" I asked.

"Ptantus has commanded Motus to fight you and kill you."

I threw my arms around Rojas and kissed her. I couldn't help it, I was so happy. "Good!" I exclaimed, "though neither of us realized it at the time, you have done me a great favor."

"What do you mean?" she demanded.

"You have given me the chance to meet Motus in a fair fight; and now I know that Llana of Gathol will be safe—as far as Motus is concerned."

"Motus will kill you," insisted Rojas.

"Will you be there to see the duel?" I asked.

"I do not wish to see you killed," she said, and clung to me tightly.

"You haven't a thing to worry about, I shall not be killed; and Motus will never have Llana of Gathol or any other woman."

"You can tell his friends to start digging his grave immediately," said Ptor Fak.

"You are that sure?" said Rojas.

"We have the princess," said Ptor Fak, which is the same as saying in America, "It is in the bag." The ex-

Mars' light gravity made my leap to the rooftop an easy matter

pression derives from the Barsoomian chess game, jetan, in which the taking of a princess decides the winner and ends the game.

"I hope you are right," said Rojas; "at least you have encouraged me to believe, and it is not so difficult to believe anything of Dotar Sojat."

"Do you know when I am to fight Motus?" I asked.

"This evening," replied Rojas, "before the whole Court in the throne room of the palace."

"And after I have killed him?" I asked.

"That is to be feared, too," said Rojas, "for Ptantus will be furious. He will not only have lost a fighting man but all the money he has wagered on the duel. But it will soon be time," she added, "and I must go now." I saw her open my pocket pouch and drop something into it, and then she was gone.

I KNEW from the surreptitious manner in which she had done it that she did not wish anyone to know what she had put in my pocket pouch, or in fact that she had put anything into it; and so I did not investigate immediately, fearing that someone may have been watching and had their suspicions aroused. The constant strain of feeling that unseen eyes may be upon you, and that unseen ears may be listening to your every word was commencing to tell upon me; and I was becoming as nervous as a cat with seven kittens.

After a long silence Ptor Fak said, "What are you going to do with her?"

I knew what he meant; because the same question had been worrying me. "If we succeed in getting out of this," I said, "I am going to take her back to Helium with me and let Dejah Thoris convince her that there are a great many more charming men than I there." I had had other women fall in love with me and this would not be the first time that Dejah Thoris had unscrambled things for me. For she knew that no matter how many women loved me, she was the only woman whom I loved.

"You are a brave man," said Ptor Fak.

"You say that because you do not know Dejah Thoris," I replied; "it is not that I am a brave man, it is that she is a wise woman."

That started me off again thinking about her. Although I must confess that she is seldom absent from my thoughts. I could picture her now in our marble palace in Helium, surrounded by the brilliant men and women who crowd her salons. I could feel her hand in mine as we trod the stately Barsoomian dances she loved so well. I could see her as though she were standing before me this minute, and I could see Thuvia of Ptarth, and Arthoris, and Tara of Helium, and Gahan of Gathol. That magnificent coterie of handsome men and beautiful women bound together by ties of love and marriage. What memories they evoked!

A soft hand caressed my cheek and a voice, tense with nervousness said, "Live! Live for me! I shall return at midnight and you must be here"; then she was gone.

For some reason or other which I cannot explain, her words quieted my nerves. They gave me confidence that at midnight I should be free. Her presence reminded me that she had dropped something into my pocket pouch and I opened it casually and put my hand into it. My fingers came in contact with a number of spheres, about the size of marbles, and I knew that the secret of invisibility was mine. I moved close to Ptor Fak; and once again with the remaining bit of wire I

picked the lock of his shackle, and then I handed him one of the spheres that Rojas had given me.

I leaned very close to his ear. "Take this," I whispered; "in an hour you will be invisible. Go to the far end of the courtyard and wait. When I return, I too, shall be invisible and when I whistle thus, answer me." I whistled a few of the opening notes of the national anthem of Helium, a signal that Dejah Thoris and I had often used.

"I understand," said Ptor Fak.

"What do you understand," demanded a voice.

Doggonit! there was that invisibility nemesis again and now all our plans might be knocked into a cocked hat. How much had the fellow heard? What had he seen? Then I felt hands at my ankle and saw my shackle open.

"Well," repeated the voice peremptorally, "what was it that you understood?"

"I was just telling Ptor Fak," I said, "how I was going to kill Motus, and he said he understood perfectly."

"So you think you are going to kill Motus, do you?" demanded the voice. "Well you are going to be very much surprised for a few minutes, and after that you will be dead. Come along the duel is about to take place."

I breathed a sigh of relief. The fellow had evidently seen or heard nothing of any importance.

"I'll see you later, Ptor Fak," I said.

"Goodby and good luck," he replied. Accompanied by the warrior, I entered a city street on my way to the throne room of Ptantus, jeddak of Invak.

CHAPTER IX

Into the Palace

"SO you think you're pretty good with the sword," said the warrior walking at my side and who was now visible to me.

"Yes," I replied.

"Well, you're going to get a lesson in swordsmanship tonight. Of course, it won't do you much good because after it is all over you will be dead."

"You are very encouraging," I said, "but if you are fond of Motus, I suggest that you save your encouragement for him. He is going to need it."

"I am not fond of Motus," said the warrior; "no one is fond of Motus. He is a calot and I apologize to calots for the comparison. I hope that you kill him, but of course, you won't. He always kills his man, but he is tricky. Watch out for that."

"You mean he doesn't fight fair?" I asked.

"No one ever taught him the word," said the warrior.

"Well, thank you for warning me," I said; "I hope you stay to see the fight; maybe you will be surprised."

"I shall certainly stay to see it," he said; "I wouldn't miss it for the world. But I am not going to be surprised; I know just what will happen. He will play with you for about five minutes and then he'll run you through; and that won't please Ptantus for he likes a long, drawn out duel."

"Oh, he does, does he?" I said; "well he shall have it." That fitted in perfectly with my plans. I had swallowed one of the invisibility spheres just before the warrior unshackled me, and I knew that it would take about an hour for it to effect perfect invisibility. It might be difficult to drag the duel out for an hour, but I hoped to gain a little time by stalling up to the moment that we crossed swords. And I accomplished it now by walking slowly to kill as much time as possible, and twice I stopped to tighten the fasteners of my sandals.

"What's the matter?" demanded the warrior. "Why do you walk so slow. Are you afraid?"

"Terrified," I replied. "Everyone has told me how easily Motus is going to kill me. Do you think that a man wants to run to his death?"

"Well, I don't blame you much," said the warrior, "and I won't hurry you."

"A lot of you Invaks are pretty good fellows," I remarked.

"Of course we are," he said. "What made you think anything different?"

"Pnoxus, Motus, and Ptantus," I replied.

The warrior grinned, "I guess you are a pretty shrewd fellow," he said, "to have sized them up this quickly."

"Everybody seems to hate them," I said; "why don't you get rid of them? I'll start you off by getting rid of Motus tonight."

"You may be a good swordsman," said the warrior, "but you are bragging too much; I never knew a braggart yet who could 'take the princess'."

"I am not bragging," I said; "I only state facts."

AS a matter of fact I often realize that in speaking of my swordsmanship, it may sound to others as though I were bragging but really I do not feel that I am bragging. I know that I am the greatest swordsman of two worlds. It would be foolish for me to simper, and suck my finger, and to say that I was not. I am, and everyone who has seen me fight, knows that I am. Is it braggadocio to state a simple fact? As a matter of fact, it has saved a number of lives. For it has kept no end of brash young men from challenging me.

Fighting has been, you might say, my life's work. There is not a lethal weapon in the use of which I do not excel, but the sword is my favorite. I love a good blade and I love a good fight and I hoped that tonight I should have them both. I hoped that Motus was all that they thought him. The thought might have obtruded on the consciousness of some men that perhaps he was, but no such idea ever entered my head. They say that overconfidence often leads to defeat but I do not think that I am ever overconfident. I am merely wholly confident, and I maintain that there is all the difference in the world there.

At last we came to the throne room. It was not the same room in which I had first seen Ptantus; it was a much larger room, a more ornate room; and at one side of it was a raised dais on which were two glass-enclosed thrones. They were empty now, for the jeddak and the jeddara had not yet appeared. The floor of the room was crowded with notables and their women. Along three sides of the room were several tiers of benches, temporary affairs, which had evidently been brought in for the occasion. They were covered with gay cloths and cushions; but they were still empty, for, of course, no one could sit until the jeddak came and was seated.

As I was brought into the room, a number of people called attention to me and soon many eyes were upon me.

In my well-worn fighting harness, I looked rather drab in the midst of this brilliant company with their carved leather harness studded with jewels. The Invaks, like most of the red nations of Barsoom, are a handsome people and those in the throne room of this tiny nation, hidden away in the Forest of Lost Men, made a brave appearance beneath the strange and beautiful lights which gave them visibility.

I heard many comments concerning me. One woman said, "He does not look like a Barsoomian at all."

"He is very handsome," said a sweet voice, which I immediately recognized;

and for the first time I looked Rojas in the face. As our eyes met I could see her tremble. She was a beautiful girl, by far the most beautiful of all the women in the room, I am sure.

"Let's talk with him," she said to a woman and two men standing with her.

"That would be interesting," said the woman, and the four of them walked toward me.

ROJAS looked me square in the eye. "What is your name?" she asked, without a flicker of recognition.

"Dotar Sojat," I replied.

"The Sultan of Swat," said one of the men, "whatever a sultan is and wherever Swat may be." I could scarcely repress a smile.

"Where is Swat?" inquired the woman.

"In India," I replied.

"I think the fellow is trying to make fools of us," snapped one of the men. "He is just making up those names. There are no such places on Barsoom."

"I didn't say they were on Barsoom," I retorted.

"If they're not on Barsoom, where are they," demanded the man.

"On Jasoom," I replied.

"Come," said the man, "I have had enough of this slave's insolence."

"I find him very interesting," said the woman.

"So do I," said Rojas.

"Well enjoy it while you may," said the man, "for in a few minutes he will be dead."

"Have you laid a wager on that?" I asked.

"I couldn't find anyone to bet against Motus," he growled. "Kandus was the only fool to do that and the jeddak covered his entire wager."

"That is too bad," I said; "someone is losing an opportunity to make some money."

"Do you think you will win?" asked Rojas, trying to conceal the eagerness in her voice.

"Of course I shall win," I replied. "I always do. You look like a very intelligent girl," I said, "if I may speak to you alone I will tell you a little secret."

She saw that I had something that I wished to say to her in private, but I will admit that I had put her in rather an embarrassing position. However, the other woman helped me out.

"Go ahead, Rojas," she urged, "I think it would be fun to hear what he has to say."

Thus encouraged Rojas took me to one side. "What is it?" she asked.

"Llana of Gathol," I said. "How are we to get her?"

She caught her breath. "I never thought of that," she said.

"Could you get one of those invisibility spheres to her right away?" I asked.

"For you, yes," she said. "For you I would do anything."

"Good; and tell her to come out into the courtyard by the quarters of the slave women. A little after midnight she will hear me whistle. She will recognize the air. She must answer and then wait for me. Will you do that for me, Rojas?"

"Yes, but what excuse am I to make for leaving my friends?"

"Tell them you are going to get some money to wager on me," I said.

Rojas smiled. "That is a splendid idea," she said. And a moment later she had made her explanations to her friends and left the throne room.

CHAPTER X

The Duel at Last

THE crowd was growing restless waiting for the jeddak, but I was

more than pleased by this delay as it would shorten the time that I would have to wait before I could achieve invisibility.

It seemed now that everything had been nicely arranged; and when I saw Rojas return to the throne room and she gave me a quick fleeting smile, I was convinced that almost the last of my worries were over. There was really only one doubt remaining in my mind, and that was as to what might happen to me after I had killed Motus. I had no doubt but that Ptantus would be furious; and being a tyrant with the reactions of a tyrant, he might order my immediate death. Anticipating this, however, I had decided to make a run for the nearest courtyard; and if sufficient time had elapsed since I had taken the invisibility sphere, I would only have to step out into the open to elude them. And, once in one of the courtyards, and invisible, I knew that I could escape.

Suddenly trumpets blared and the people fell back to each side of the throne room. Then, preceded by the trumpeters, Ptantus and his jeddara entered the throne room accompanied by a band of gorgeously trapped courtiers.

I glanced at the great clock on the wall. It was exactly the 8th zode, which is the equivalent of 10:48 P.M., Earth time. By midnight Llana of Gathol would have achieved invisibility —if Rojas had given her the sphere. That was the question. Yet I felt that Rojas had not failed me. I firmly believed that she had done her part.

The royal pair made their way slowly across the room to the dais and seated themselves upon their thrones, whereat the nobles and their women found their places on the benches.

From somewhere Motus had appeared; and he, and a noble who accompanied him, and I, and my warrior guard, were alone upon the floor. Motus wore a strange glass helmet and on his back was a tank and other gadgets. I guess it was the new invisibility apparatus. A fifth man then appeared whom I later discovered was what you might call a referee, or umpire. He summoned me, and the five of us advanced and stopped before the throne.

"I bring you the noble Motus," he said, addressing Ptantus, "and Dotar Sojat, the Sultan of Swat, who are to duel to the death with long-swords."

The jeddak nodded. "Let them fight," he said, "and see that you fight fair," he added, glaring directly at me.

"And, I suppose that Motus does not have to fight fair," I said; "but that is immaterial to me. I shall kill him however he fights."

The referee was almost beside himself with embarrassment. "Silence, slave," he whispered. He carried an extra sword which he handed to me and then motioned us to cross swords.

Instead of adhering to this honorable custom, Motus lunged for my heart.

"That was unwise, Motus," I said, as I parried the thrust; "I am going to make you suffer a little more for that."

"Silence, slave," said the referee.

"Silence yourself, calot," I replied, "and get out of my way. I am not supposed to be fighting two men," I pricked Motus on the right breast and brought blood, "but I shall be glad to if you will draw."

Motus came at me again, but he was wary and he was a good swordsman.

"Your face is all black and swollen, Motus," I said; "it looks as if someone had hit you, for that is what a son-of-a-calot is apt to get when he kicks a blind man."

"Silence," screamed the referee.

I FOUGHT on the defensive at first with one eye on the great clock. It

had been over half an hour since I had taken the invisibility sphere, and I planned on letting Motus live another half hour so as to be quite sure that I had gained potential invisibility before I finished him off.

By fighting on the defensive, I compelled Motus to do all the work; and by repeatedly side-stepping his most vicious lunges, letting them slip off my blade so that he had to leap quickly back, I subjected him to considerable nervous as well as physical strain, so that presently the sweat was streaming down his body. And, now I commenced to touch him here and there; and blood mixed with the sweat until he was a sorry-looking spectacle, although nowhere had he received a severe wound.

The crowd was all on Motus' side; that is, all who are vocal. I knew of two at least who hoped that I would win, and I guess that there were many others who disliked Motus but who dared not cheer on an alien and a slave.

"You are tiring, Motus," I said to him; "hadn't you better finish me off now before you become exhausted?"

"I'll finish you off all right, slave," he came back, "if you'll stand still and fight."

"It is not time to kill you yet, Motus," I said, glancing up at the clock, "when the hand points to eleven xats past the 8th zode, I shall kill you."

"Silence," screeched the referee.

"What is the slave saying?" demanded Ptantus in stentorian tones.

"I said," I shouted back at him, "that I should kill Motus at exactly 8 zodes, 11 xats. Watch the clock, Ptantus, for at that instant you are going to lose your wager, and Motus his life."

"Silence," commanded the jeddak.

"Now, Motus," I whispered, "I am going to show you how easily I can kill you when the time comes," and with that I disarmed him and sent his sword clattering across the floor.

A mighty gasp arose from the audience, for now under the rules of a duel of this nature, I was at liberty to run Motus through the heart; but instead I rested my point upon the floor and turned to the referee.

"Go and fetch Motus' sword," I said, "and return it to him."

Motus was trembling a little. I could see his knees shake though almost imperceptibly. I knew then what I had suspected before—Motus was yellow.

While the referee was retrieving Motus' sword, a little ripple of applause ran through the stands. But Ptantus only sat and scowled more fiercely; I fear that Ptantus did not like me.

When Motus' sword was returned to him, he came for me furiously, and I knew perfectly well what was in his mind; he was going to finish me off immediately. I disarmed him again; and again I lowered my point, while the referee without waiting to be told ran after the blade.

NOW Motus was more wary. I could see that he was trying to work me around to some position in which he wished to have me. I noticed presently that the referee was not within my range of vision, and a quick glance told me he was standing directly behind me; it was not intuition that told me why, for I had seen that trick played before by crooked swordsmen with an accomplice. I heard a few groans from the stands; and then I knew that I was right, for no honorable person could witness such a thing without voicing his disapproval.

When Motus next lunged, hoping to force me back, the referee would "accidentally" be close behind me; I would bump into him, and Motus would have me at his mercy. It is a despicable trick; and Ptantus must have seen it

coming, but he made no move to prevent it.

I watched Motus' eyes and they telegraphed his intention to me an instant before he lunged, throwing all his weight behind it. I had slightly crouched in anticipation of this; and my earthly muscles carried me to one side, and Motus' sword drove to the hilt through the body of the referee.

For a moment pandemonium reigned in the throne room. The entire audience stood up in the stands and there were cheers and groans, and something told me that the cheers were for me and the groans for Motus and the referee.

Motus was a terribly unstrung and rattled man as he jerked his blade from the body of the dead man, but now I gave him no respite. I went after him in earnest, though not yet for the kill I cut a deep gash across his breast. "You will not make a good-loking corpse now, Motus," I said, "and before I am through with you, you are going to look a great deal worse."

"Calot!" he snapped, and then he rushed me, cutting and thrusting violently. I parried every cut and thrust and wove a net of steel around him, and every time he missed I brought blood from some new spot on his body.

"You have three xats to live, Motus," I said; "you had better make the best of them."

He rushed at me like a madman; but I sidestepped him and as he turned I took off one of his ears as neatly as a surgeon could have done it—I thought he was going to faint, for his knees seemed to give beneath him and he staggered about for a moment.

I WAITED for him to recover control of himself, and then I went to work on him again. I tried to carve my initials on his breast, but by this time there was not a whole place large enough; from the waist up he looked like a plate of raw hamburger.

The floor was covered with his blood by now; and as he rushed me again furiously, he slipped and fell. He lay there for a moment glaring at me, for I am sure he expected that I would finish him off then; but instead I said, "You have a xat and a half to live yet, Motus."

He staggered to his feet and tried to throw himself upon me, screaming imprecations as he came. I think that by this time Motus had gone quite mad from pain and terror. I felt no sympathy for him—he was a rat; and now he was fighting like a cornered rat.

"The floor is too slippery here," I said to him; "let's go over by the jeddak's throne—I am sure that he would like to see the finish."

I maneuvered him around into position and backed him across the floor until we stood directly in front of Ptantus.

It is seldom that I have ever punished a man as I punished Motus; but I felt that he deserved it, and I was the plaintiff, prosecuting attorney, jury, and judge; I was also the executioner.

Motus was gibbering now and making futile passes at me with his blade. Ptantus was glaring at me, and the audience was tense with breathless expectancy. I saw many an eye glance quickly at the clock.

"One more tal, Motus," I said. A tal is about eight tenths of an earthly second.

With that I drove my blade through Motus' body below the left shoulder blade at exactly 11 xats past the 8th zode. As he fell, his glass helmet smashed and gas hissed from the pierced hose on the tank at his back. Motus would never finish his invisibility apparatus.

CHAPTER XI

A Moment for Escape

I TURNED and bowed to Ptantus, now having no sword with which to salute him. He should have acknowledged this customary courtesy but he did nothing of the sort; he merely glared at me and stood up. The jeddara arose too; and, with the trumpeters before them and the courtiers behind, the two stalked out of the throne room, making a wide detour to avoid the blood and the two corpses.

After they had left, the warrior who had brought me from the courtyard came and touched me on the arm. "Come," he said. "All you get out of this is to be chained to your tree again."

"I got a great deal more than that out of it," I replied, as I accompanied him across the throne room; "I had the satisfaction of avenging a cowardly kick."

As we crossed towards the doorway, someone started cheering and then practically the entire audience took it up. "That is an unusual demonstration," said the warrior, "but you deserve it. No one on Barsoom ever saw such sword play as you showed us tonight—and I thought you were boasting!" He laughed.

I KNEW that it would be necessary for us to cross a couple of courtyards before we reached the one in which I had been confined; and I realized that if I suddenly disappeared before the warrior's eyes, he would know that I had obtained invisibility spheres; and while, of course, he couldn't have found me, it would certainly have started an investigation and would have upset our plans for escape. If they knew that I were at large and invisible, one of the first things that they would most naturally have done would have been to have placed a guard over my flier.

If, however, they merely thought that I had escaped, and was not invisible, they would feel that they need only search for me to find me very quickly. Of course, they might still place a guard over the flier; but such a guard would not be so on the alert, and we still might board the ship and get away before they were aware of our presence.

As we approached the first courtyard, I suddenly broke away from my guard and ran ahead with all my earthly speed. The warrior shouted for me to halt, and broke into a run. As I reached the entrance to the courtyard I pretended to dodge around the corner, which would of course have hidden me from him.

I must confess that in that short sprint my heart had been in my mouth, for, of course, I could not know whether or not I should become invisible.

However, the moment that I left the lighted corridor I absolutely disappeared; I could not see any part of my body—it was the strangest sensation that I have ever experienced.

I had made my plans, and now I ran to the far end of the courtyard and leaped lightly to the roof of the city.

I could hear the warrior guard rushing about calling to me; my disappearance must certainly have mystified him, for having no idea that I could become invisible, there was really no way in which he could account for it except on the theory that I had run into the entrance to another street. However, he was probably confident that I did not have time to do this.

Well, I did not bother much about him or what he was thinking; instead I took off across the roof in search of the courtyard where Ptor Fak was

awaiting me and where I expected to meet Rojas at midnight; and it was pretty close to what we call midnight then, the Barsoomian midnight occurring twenty-five xats after the eighth zode.*

I had no difficulty in finding the courtyard in which I had been confined; and when I reached it I whistled, and Ptor Fak answered. I dropped down into it and whistled again, and when Ptor Fak answered I groped around until I bumped into him.

"How well you look," he said, and we both laughed. "It took you much longer to dispose of Motus than I had anticipated," he continued.

"I had to drag it out so that I would be sure to be invisible when I had returned here," I explained.

"And now what?" asked Ptor Fak.

I found his head and placed my lips close to one of his ears. "After Rojas comes," I whispered, "we'll cross the roof to the quarters of the slave women and get Llana of Gathol. In the meantime, you climb this tree which overhangs the roof and wait for us up there."

"Whistle when you come up," he said, and left me.

INVISIBILITY I discovered was most disconcerting; I could see no part of my body; I was only a voice without substance—a voice standing in an apparently deserted courtyard which might be filled with enemies, as far as I knew. I couldn't even have heard them had there been any there, for the Invaks have taken the precaution of covering all the metal parts of their accouterments so that there is not the usual clank of metal upon metal when they move about.

Knowing as I did that a search for me must have been instituted, I left positive that there must be Invak warriors in the courtyard, nothwithstanding the fact that I neither heard nor saw anyone.

As I waited for Rojas, I took the precaution of not moving about lest I inadvertently bump into someone who might require me to identify myself; but I could not prevent someone from bumping into me, and that is exactly what happened. Hands were laid upon me and a gruff voice demanded, "Who are you?"

Here was a pretty kettle of fish. What was I to do? I doubted that I could pass myself off as an Invak—I knew too little about them to do that successfully; so, I did the next best thing that occurred to me.

"I am the ghost of Motus," I said, in a sepulchral voice. "I am searching for the man who killed me, but he is not here."

The hands relinquished their hold upon me. I could almost feel the fellow shrink away from me, and then another voice said, "Ghost of Motus nothing—I recognize that voice—it is the voice of the slave who killed Motus. Seize him!"

I jumped to one side but I jumped into the arms of another voice, and it seized me. "I have him!" cried the voice. "How did you achieve the secrets of invisibility, slave?"

With my left hand I groped for the hilt of the fellow's sword, and when I

*A Martian day is divided into ten zodes, there being four tals to a xat, or two hundred to a zode. The dials of their clocks are marked with four concentric circles; between the inner circle and the next outer one the zodes are marked from one to ten; in the next circle, the xats are marked from one to fifty between each two zodes; and in the outer circle two hundred tals are marked between the radii which pass through the zode numbers and extend to the outer periphery of the dial. Their clock has three different colored and different length hands, one indicating the zode, the second one the xat, and the longest one the tal.—Ed.

found it, I said, "You have made a mistake," and drove his sword through the heart of the voice.

There was a single piercing scream, and I was free. Holding my sword point breast high, I turned and ran for the tree by which Ptor Fak had mounted to the roof. One of my shoulders brushed a body, but I reached the tree in safety.

As I climbed carefully to a lower branch so as not to reveal my presence by the shaking of the foliage, I heard a low whistle. It was Rojas.

"Who whistled?" demanded a voice somewhere in the courtyard. There was no reply.

Rojas could not have come at a worse time; I did not answer her; I did not know what to do, but Ptor Fak evidently thought that he did, for he answered the whistle. He must have thought that it was I who was signalling to him.

"They're on the roof!" cried a voice. "Quick! Up that tree!"

NOW the only tree that overhung the roof was the one that I was in, and if I remained there I was sure to be discovered. There was only one thing for me to do and that was to go up on the roof myself, and I did so as quickly as I could.

I hadn't taken half a dozen steps after I arrived, before I bumped into someone. "Zodanga?" I whispered. I didn't wish to speak Ptor Fak's name, but I knew that he would understand if I spoke the name of the country from which he came.

"Yes," he replied.

"Find the flier and stay near it until I come." He pressed my arm to show that he understood, and was gone.

I could see the tree up which I had come shaking violently; so I knew that a number of warriors were climbing up in pursuit of me, though how in the world they expected to find me, I don't know.

It was a most amazing situation; there must have been at least a dozen men on the roof and possibly still others down in the courtyard where I knew Rojas to be, yet both the roof and the courtyard were apparently deserted—neither the eye nor the ear could perceive any living thing; only when someone spoke was the illusion dispelled, and presently I heard a voice a short distance away: "He has probably gone this way—the city wall lies nearest in this direction. Spread out and comb the roof right to the city wall."

"It's a waste of time," said another voice. "If someone has given him the secret of invisibility, we can never find him."

"I do not think it was he, anyway," said a third voice; "there is no way in which he could have become invisible—it was unquestionably the ghost of Motus that spoke."

By this time the voices were dwindling in the distance, and I felt that it was safe to assume that all the warriors had gone in search of me; so I walked to the edge of the roof and jumped down into the courtyard. I stood there a moment concentrating all my mental powers in an endeavor to sense the presence of others near me, as Kandus had said that he was able to do, but I got no reaction. This might mean either that I failed to sense the presence of others or that there was no one there—at least near me; so I took the chance and whistled again. An answer came from the other side of the courtyard. I waited. Presently I heard a low whistle much nearer, and I replied—a moment later Rojas' hand touched mine.

I did not speak again for fear of attracting other pursuers, but I led her

to the tree and helped her to clamber to the roof.

"Where is my flier?" I whispered.

She took me by the arm and led me in a direction at right angles to that which my pursuers had taken. The outlook appeared brighter immediately.

Rojas and I walked hand in hand so as not to lose one another. Presently I saw my flier standing there in the light of the farther moon, and it certainly looked good to me.

"The quarters of the slave women are near by, are they not?" I asked in a whisper.

"Right there," she said, and I suppose she pointed; then she led me to the edge of the roof overlooking a courtyard.

CHAPTER XII

Llana Again

ROJAS and I stood hand in hand at the edge of the roof looking down into a seemingly deserted courtyard. "You gave Llana of Gathol the invisibility sphere?" I asked.

"Yes," replied Rojas, "and she must be invisible by this time." She pressed my hand. "You fought magnificently," she whispered. "Everyone knew that you could have killed Motus whenever you wished; but only I guessed why you did not kill him sooner. Ptantus is furious; he has ordered that you be destroyed immediately."

"Rojas," I said, "don't you think that you should reconsider your decision to come with me? All of your friends and relatives are here in Invak, and you might be lonesome and unhappy among my people."

"Wherever you are, I shall be happy," she said. "If you do not take me with you I shall kill myself."

So that was that. I had involved myself in a triangle which bid fair to prove exceedingly embarrassing and perhaps tragic. I felt sorry for Rojas, and I was annoyed and humiliated by the part that I was forced to play. However, there had been no other way; it had been a question of Rojas' happiness or of Llana's life, and the lives of Ptor Fak and myself. I knew that I had chosen wisely, but I was still most unhappy.

Motivated by the habits of a lifetime, I strained my eyes in search of Llana of Gathol, who perhaps was down there somewhere in the courtyard; and then, realizing the futility of looking for her, I whistled. There was an immediate response from below and I sprang down from the roof. It did not take us long to locate one another; and as we were not challenged, I assumed that we were fortunate enough to be alone.

Llana touched my hand. "I thought that you would never come," she said. "Rojas told me about the duel that you were to fight; and while I had no doubts about your swordsmanship, I realized that there is always the danger of an accident or trickery. But at last you are here; how strange it is not to be able to see you. I was really quite frightened when I stepped out here into the courtyard and discovered that I could not even see myself."

"It is the miracle of invisibility that will save us," I said, "and only a miracle could have saved us. Now I must get you to the roof."

There was no overhanging tree in this courtyard, and the roof was fifteen feet above the ground. "You are about to have an experience, Llana," I said.

"What do you mean?" she asked.

"I am going to toss you up onto the roof," I told her, "and I hope you land on your feet."

"I am ready," she said.

I COULD see the roof all right, but I couldn't see Ilana; all I could do was pray that my aim would be true. "Keep your whole body perfectly rigid," I said, "until I release you; then draw your feet up beneath you and relax. You may get a bad fall, but I don't think that it can hurt you much; the roof is heavily padded with vines."

"Let's get it over," said Llana.

I grasped one of her legs at the knee with my right hand and cradled her body on my left forearm; then I swung her back and forth a couple of times and tossed her high into the air.

Llana of Gathol may have been invisible, but she was also definitely corporeal. I heard her land on the roof with anything but an invisible thud, and I breathed a sigh of relief. To spring lightly after her was nothing for my earthly muscles, and soon a low whistle brought the three of us together. I cautioned the girls to silence, and we walked hand in hand in the direction of the flier.

This was the moment that aroused my greatest apprehension, as I realized that the flier might be surrounded by invisible warriors; and, as far as I knew, the only sword among us was the one I had taken from the warrior I had killed in the courtyard; but perhaps Rojas had one.

"Have you a sword, Rojas?" I whispered.

"Yes," she said; "I brought one."

"Can you use it?" I asked.

"I never have used one," she replied.

"Then give it to Llana of Gathol; she can use it if necessary, and very effectively, too."

We approached to within about a hundred feet of the flier and stopped. This was the crucial moment; I was almost afraid to whistle, but I did. There was an immediate answer from the vicinity of the flier. I listened a moment for voices that might betray the presence of the enemy, but there were none.

We advanced quickly then, and I helped the girls over the rail. "Where are you, Ptor Fak?" I asked.

"On deck," he said, "and I don't think there is anyone around."

"All the warriors of Invak could be here now," I said, as I reached the controls and started the motor.

A moment later the little ship rose gracefully into the air, and almost immediately from below us, we heard shouts and imprecations. The Invaks had seen the ship, but too late to prevent our escape. We were safe. We had accomplished what a few hours before would have seemed impossible, for then Ptor Fak and I were chained to trees and Llana of Gathol was a captive in another part of the city.

"We owe Rojas a great debt of gratitude," I said.

"A debt," she replied, "which it will be very easy, and I hope pleasant, for you to repay."

I winced at that; I saw a bad time ahead for me. I would rather face a dozen men with my sword than one infuriated or heartbroken woman. Before we reached Helium, I would have to tell her, but I decided to wait until we had regained visibility.

Perhaps it would have been easier to tell her while we were both invisible, but it seemed a cowardly way to me.

"You are going on to Helium, John Carter?" asked Llana.

"Yes," I said.

"What will they think of a flier coming in by itself with no one on board?" she asked.

"We will have to wait until we become visible before we approach the city," I replied. "We must not take any more of the invisibility spheres."

"Who is John Carter?" asked Rojas. "Is there another here of whom I did not know?"

"I am John Carter," I replied. "Dotar Sojat is merely a name that I assumed temporarily."

"Then you are not the Sultan of Swat?" demanded Rojas.

"No," I replied, "I am not."

"You have deceived me."

"I AM sorry, Rojas," I said; "I was not trying to deceive you . . . about my name; as a matter of fact I never told you I was the Sultan of Swat; I told some warrior who questioned me." If she were angry about my deceiving her concerning my name and status, how was she going to take the fact that I did not love her, and that I already had a mate! I was as unhappy as a live eel in a frying pan; then of a sudden I decided to take the bull by the horns and get the whole thing over with. "Rojas," I began, "though I did not deceive you about my name, I did deceive you in a much more important matter."

"What is that?" she asked.

"I used your — ah — friendship to gain freedom for Llana of Gathol. I pretended to love you when I did not; I already have a mate."

I waited for the explosion, but no explosion came; instead there was a faint, tinkling little laugh. I continued to wait; no one spoke; the silence became oppressive. Momentarily I expected a dagger to be slipped into me; or that Rojas would leap overboard; but neither of these things occurred, and I sat there at the controls wondering about that laugh. Perhaps the shock of my avowal had unbalanced Rojas' mind. I wished that I could see her, and at the same time I was glad that I could not—and I was certainly glad that no one could see me, for I felt like a fool.

I couldn't think of anything to say, and I thought the silence was going to last forever, but finally Llana of Gathol broke it. "How long will we remain invisible?" she asked.

"A little more than ten zodes from the time you took the sphere," said Rojas. "I shall become visible first, and then probably either John Carter or Ptor Fak, as I imagine that they took the spheres about the same time; you will be the last to regain visibility." Her voice was perfectly normal; there was no trace of nervousness nor bitterness in it. I couldn't make the girl out.

Perhaps she was the type that would bide its time until it could wreak some terrible revenge. I'll tell you that I had plenty to think about on that trip to Helium.

CHAPTER XIII

Out of Invisibility!

SHORTLY after dawn, I saw a most amazing phenomenon—I saw just a suggestion of the outline of a shadowy form beside me; it took shape slowly: Rojas was materializing! The effects of the invisibility compound were disappearing, and as they disappeared Rojas appeared. There she sat gazing out across the Martian landscape, the shadow of a happy smile upon her lips; somehow she reminded me of a cat which had just swallowed a canary.

"Kaor!" I said, which is the Barsoomian equivalent of Good Morning, Hello, or How-do-you-do? — in other words, it is a Barsoomian greeting.

Rojas looked in my direction but of course she could not see me.

"Kaor," she replied, smiling. "You must be very tired, John Carter; you

have had no sleep all night."

"When Llana of Gathol awakens, I shall sleep," I replied; "she can handle the controls quite as well as I."

"I have never been beyond the forests of Invak before," said Rojas "What a drab, lonely world this is."

"You will find the twin cities of Helium very beautiful," I said. "I hope that you will like it there, Rojas."

"I am sure that I shall," she said; "I am looking forward to being in Helium with you, John Carter."

I wondered what she meant by that. The girl was an enigma; and I gave up trying to find a solution of her, and when Llana of Gathol spoke a moment later, and I knew that she was awake, I asked her to take the controls.

"We will cruise around outside of Helium," I said, "until we have all regained visibility," and then I lay down and fell asleep.

It was late that night before we had all regained visibility, and the next morning I approached Helium. A patrol boat came up to meet us, and recognizing my flier, it came along side. The officer in command, and, in fact, the whole crew were overjoyed to see both Llana of Gathol and myself, alive and safe. The patrol boat escorted us to the hangar on the roof of my palace, where we received a tremendous welcome, as we had both been given up for dead long since.

Ptor Fak, Llana, and Rojas were behind me when I took Dejah Thoris in my arms; then I turned and presented Rojas and Ptor Fak to her.

"Had it not been for Rojas," I told Dejah Thoris, "none of us would have been here," and then I told her very briefly of our capture and incarceration in Invak.

I watched Rojas very closely as Dejah Thoris took both her hands in hers and kissed her on the forehead; and then, to my surprise, Rojas threw her arms about her and kissed her squarely on the mouth; the girl was absolutely bewildering.

AFTER we had all breakfasted together, Dejah Thoris asked me what my plans were now. "I shall see Tardos Mors immediately," I replied, "and after I have arranged for the dispatch of a fleet for Gathol, I shall fly there myself, alone, to reconnoiter."

"Why alone?" demanded Dejah Thoris; "but why should I ask? It has always been your way to do things alone."

I saw Tardos Mors and made the necessary arrangements for the dispatch of a fleet to Gathol; and then I returned to my palace to bid Dejah Thoris good-bye, and as I passed through the garden, I saw Rojas sitting there alone.

"Come here a moment, John Carter," she said; "I have something to say to you."

Here it comes, I thought; well, it would have to be gotten over sooner or later, and it would be a relief to get it over at once.

"You deceived me, John Carter," she said.

"I know I did," I replied.

"I am so glad that you did," she said, "for I deceived you. I admired you, John Carter, tremendously; but I never loved you. I knew that you had come to Invak in a flier; and I knew that if you could be helped to escape in it, you might be persuaded to take me with you. I hate Invak; I was most unhappy there; I would have sold my very soul to have escaped, and so I tried to make you love me so that you would take me away. I thought I had succeeded, and I was very much ashamed of myself. You can never know how relieved I was

when I found that I had failed, for I admired you too much to wish to bring unhappiness to you."

"But why did you pretend to be so jealous of Llana of Gathol?" I asked.

"To make my love seem more realistic," she said.

"You have lifted a great weight from my conscience, Rojas. I hope that you will like it here and that you will be very happy."

"I shall love it," she said, "for I already love Dejah Thoris, and she has asked me to stay here with her."

"Now I know that you will be happy here," I told her.

"I am sure of it, John Carter—I have seen some very handsome men here already, and they can't all have mates."

The flight to Gathol was uneventful. I had taken an invisibility sphere some time before leaving Helium, and before I reached Gathol I had completely disappeared.

AS I approached the city, I could see Hin Abtol's army drawn up around it; there were many more than there had been when I escaped in the Dusar; and on the line from which I had stolen the ship were at least a hundred more fliers, many of them large fighting ships, with some transports.

Presently several patrol boats rose to meet me. I was flying no colors, and when they hailed me I made no response. A couple of them ranged alongside me, and I could hear the exclamations of astonishment when they discovered that there was no one aboard the ship and no pilot at the controls.

I think they were rather frightened, for no one attempted to board me; and they let me fly on without interfering.

I dropped down to the Panar line, and set my flier down beside the last ship in it. One of the patrol ships landed also, and was soon surrounded by a crowd of officers and warriors, who soon approached my ship with every sign of curiosity written on their faces.

"This ship is piloted by Death," I said in a loud voice; "it is death to approach too close or to try to board it."

The men stopped then, and most of them fell back. I dropped to the ground and wandered about at will, my purpose being to gather what information I could from conversations among the officers. These men, however, were so interested in my ship that I gained no information from them; and so I wandered away and walked down the line to the flagship, which I boarded, passing the sentry at the foot of the ladder and the watch on deck. It seemed strange to walk there among the enemy, unseen; all that I had to do was to avoid contact with any of them, and I was safe from detection.

I went to the cabin of the commander of the fleet. He was sitting there with several high ranking officers, to whom he was giving instructions.

"As soon as Hin Abtol arrives from Pankor," he was saying, "we are to take up several thousand men equipped with equilibrimotors and drop them directly into the city; and then, with Gathol as a base, we shall move on Helium with fully a million men."

"When will Hin Abtol arrive?" asked one of the officers.

"Tonight or tomorrow morning," replied the commander. "He is coming with a large fleet."

Well, at last I had learned something; and my plans were formulated instantly. I left the flagship and returned to my flier, which was being

examined by a considerable number of officers and men, but from a safe distance.

I had difficulty in finding an opening through which I could pass without touching any of them; but at last I succeeded, and I was soon at the controls of my flier.

As it rose from the ground apparently without human guidance, exclamations of awe and astonishment followed it. "It is Death," I heard a man cry; "Death is at the controls."

I circled low above them. "Yes, it is Death at the controls," I called down to them; "Death, who has come to take all who attack Gathol;" then I zoomed swiftly aloft and turned the nose of my ship toward Pankor.

I only went far enough from Gathol to be out of sight of Hin Abtol's forces; and then I flew in wide circles at considerable altitudes, waiting for Hin Abtol's fleet.

AT long last I saw it in the distance. With it was the man who, with the enormous number of his conscripts, would surely take Gathol and sack it, were he not stopped.

I spotted Hin Abtol's flagship immediately and dropped down alongside it. My little flier evoked no alarm, as it would have been helpless in the midst of this great fleet; but when those aboard the flagship saw that the flier was maneuvering without human control, their curiosity knew no bounds, and they crowded to the rail to have a better look.

I circled the ship, drawing nearer and nearer. I could see Hin Abtol on the bridge with a number of officers, and I saw that they were as much intrigued as were the warriors on deck.

Hin Abtol was leaning far out over the rail to have a better look at me; I moved in closer; the side of the flier touched the bridge lightly.

Hin Abtol was peering down at the deck and into the little control room. "There is no one aboard this ship," he said; "some one has discovered the means of flying it by remote control."

I had set the wheel to hold the flier tightly against the bridge; then I sprang across the deck, seized Hin Abtol by his harness, and dragged him over the rail onto the deck of the flier. An instant later, still holding Hin Abtol, I was at the controls; the flier nosed down and dove beneath the flagship at full speed. I heard shouts of astonishment mingled with cries of rage and fear.

A number of small craft took after me; but I knew that they could not overtake me, and that they would not dare fire on me for fear of killing Hin Abtol.

Hin Abtol lay trembling at my side, almost paralyzed with terror. "What are you?" he finally managed to stammer. "What are you going to do with me?"

I did not reply; I thought that that would terrify him the more; and I know that it did, for after a while he implored me to speak.

We flew back, high over Gathol, which was now safe from attack. Early the next morning I saw a great fleet coming from the southeast—it was the fleet from Helium that Tardos Mors was bringing to relieve Gathol.

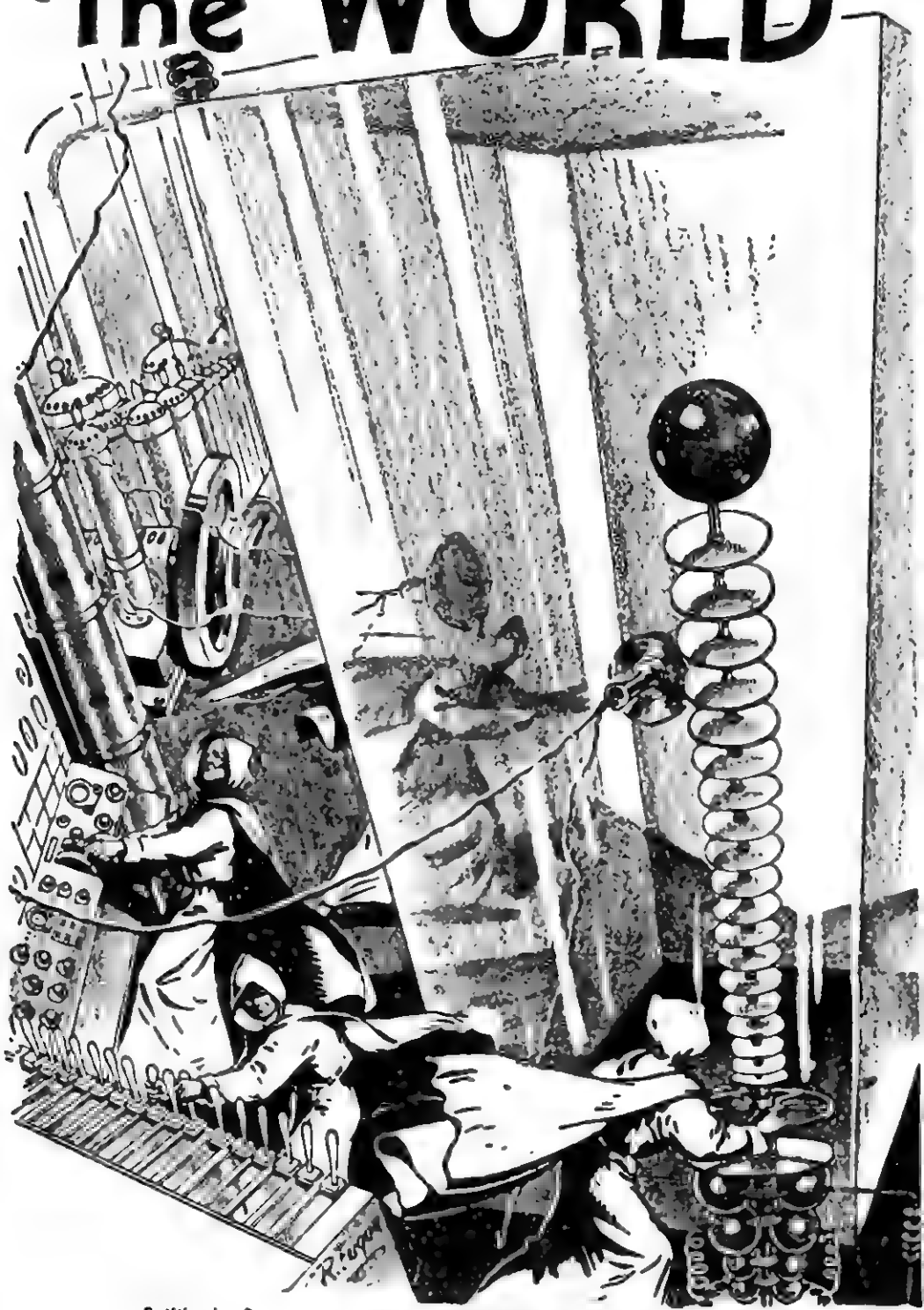
As I was approaching it, the effects of the invisibility sphere diminished rapidly; and I materialized before the astounded gaze of Hin Abtol.

"Who are you? What are you?" he demanded.

"I am the man whose flier you stole at Horz," I replied. "I am the man who took it from beneath your nose in Pankor, and with it Llana of Gathol—I am John Carter, Prince of Helium; have

(Concluded on page 58)

The WORLD



Swiftly the five went into action, and the great cube began to glow

# of MIRACLES

by

DAVID V. REED

Lito planned the conquest of Earth perfectly. But he kidnaped two Earthmen who had had a few beers too many, and that made a difference!

"IT cannot fail," said Kora-san, quietly. "It must not fail, for if it does, the world of Quenna is lost. Too many years of our labor have gone into it, and we are the only ones who remain now."

There was something terrifying about the machine. Nothing like it had ever been created. It looked like a huge cube of brilliant quartz, a great, transparent block of strange matter, elevated several feet above the level of the hall, resting on a single, star-shaped slab of jade. Beside it, an inclined panel that was its control board.

It was time they had started the machine, yet the Quennians hesitated. They stood together, five, white-robed men, postponing the moment for which they had waited so long, the same thoughts and fears running through them. Lito, chief among these scientists, let his eyes wander about the great, vacant hall. Everything was ready. Shafts of warm, invigorating sunlight poured through the arched windows to the floor, standing like buttresses against the walls. He looked out of one of the windows to the barren land that stretched endlessly to the horizon, and he reflected on the enormity of their task.

"Just one chance," he said. He had repeated the phrase often in the last days. "The machine will work once. It will go there and return, then it will

go back again. And then, according to the sacred teachings of Tallu, this monument to our science will shatter, and in all the world of Quenna there will not be enough *leuyte to* build another machine." He was silent, then presently he added, "But our one chance will succeed. It cannot be otherwise. Are you ready?"

The four scientists nodded and each took his place at the levers and silver bars that studded the control board. At a sign from Lito, each began the operations which he had learned so long ago. They worked in deathly quiet, their hands moving skillfully, surely.

Thin beams of light of many colors began to play about the machine. Now they began to twine about each other, forming twisting pillars of rainbows. Faster and faster the lights spun, until the sheen of their speed had formed a veil that obscured the machine. The transparent walls turned opaque, and a sigh went up from the men who stood around it. It had begun—

"GET offa my bed," Mike Tracy said, moodily. "Get them dirty shoes offa my bed." He reached to the dresser for a hairbrush and threw it at his roommate, Sammy Green. Sammy barely rolled his head out of the way, and the brush dented the wall and bounced off. Immediately, someone on the other side of the wall started hammering. A muffled voice cried, "If you drunken bums don't stop fighting—"

"Thazz what I say," said Sammy, nodding his head heavily. "That is ezzact—*ex*actly my sentiments. Whazz got into you, anyhow?"

"Nothing," Mike said, disgusted. "You get them dirty shoes off my bed before I chop your feet off. Where's the axe?" He got up unsteadily from the broken couch. "You seen the axe, Sammy-old-boy?"

"It so happens," Sammy said, raising himself on one elbow and shaking a finger, "that thizzizz *my* bed. How do you like that?"

Mike Tracy squinted and looked around the room slowly.

"Well," he chuckled, "whadda you know about that?" He snickered at himself a moment, then suddenly his face darkened. "Don't think I forgot," he said. "Dirty two-timer, that's what you are. Fine friend, going out with my girl. Fine friend."

Sammy fell back again and made a cooing sound.

"If you can wear my ties, I can go out with your girl," he said, closing his eyes.

"Who sezz?"

"Me. Samuel Green. Sambo, wambo mumbo jumbo Green."

"I don't care what your whole family says," said Mike. "She's my girl and she's in love with me."

"She's in love with my ties," said Sammy. "Me. Sambo wambo."

Mike fished around on the floor and picked up a slipper. Taking careful aim, he hurled the slipper across the room. It struck a picture, and slipper and picture crashed to the floor. Inarticulate cries came through the wall. Presently Mike said:

"I don't like this apartment. Neighbors alla time making noise."

"All dead drunk," said Sammy.

"Yeah," Mike said bitterly. "You take out my girl, and when I get a bottle of Scotch to drown my sorrow, you drink my Scotch."

"If you can wear my ties, I can drink your Scotch."

Mike made a mournful sound, and minutes passed in a hazy dream before he spoke again. Then he said:

"Sammy, I don't feel so good. Got all kinds of lights in my head."

"Me too," said Sammy. "Passa bottle, please."

"Nothing doing," Mike said. "Fine friend, stealing my girl. Gonna drink it all myself—got lights spinning in my head—colors—"

"I see 'em," Sammy mumbled. "Very pretty."

THE opaqueness was dissolving from the walls of the machine, and the scientists of Quenna stood tensely on all sides. After a time, Pyteles said:

"There is nothing within. It will—" His voice choked off to silence. But the machine became increasingly clear, and among the many forms that began to assume definite shape, two moved! Two forms that moved spasmodically—The machine had brought back life!

All at once the veil seemed to lift, and a thrill swept through the feverish band of white-clad men. Looking into the machine, they could see the two forms clearly now—forms that bore a miraculous resemblance to the bodies and faces of the Quennians themselves. Lito now said:

"It is as Tallu said, from beginning to end." Even he was un-nerved by the fidelity with which the physical make-up of the Quennians duplicated that of the two men in the machine.

Only their dress was different, and that too had been expected. But the two men were lying on their backs, eyes closed, oblivious of where they were or what had happened to them and what had been their room, and one of them mumbled three words haltingly:

"She's my girl."

And now that one of them had spoken, Kora-san took a thin silver band in his trembling hands and encircled his brow with it. He gazed searchingly at the two men within the transparent walls. The band sparkled and lit up his gentle, graven features, and Kora-san nodded.

"It is a strange language," he said. "One of broken words and clouded inferences, but with sufficient complexity for us to communicate with each other." Quickly, the other four scientists put on their circlets.

The Quennian scientists looked as if they could have cried out in unrepressed joy, but they were quiet. Pyteles said:

"Then they are civilized? We shall have no need to restrain them?"

Lito, the chief, waved him away, a trace of impatience in his gesture.

"The word of Tallu told us they were civilized, after a fashion," he said. "If they were not, our purpose would have no meaning, no chance of success." He touched a lever on the instrument panel himself, and the walls of the machine dropped from sight, exposing the interior of the machine with its occupants.

With quick, decisive steps, Lito walked up the stairs that were carved in the jade on which the machine rested. He entered the area of the interior and stood close to the men. They had scarcely stirred in minutes.

"Welcome to Quenna, travelers from the Third Dimension," said Lito. "Welcome to the world of the Fourth Dimension."

MIKE TRACY half turned and blinked at the tall man who stood before him, clad in a white toga.

"Where the hell did you come from?" Mike said, in perplexity.

"Hell?" Lito's brow furrowed. "This is Quenna. Were you expecting to travel to hell?"

"Maybe him, not me," said Sammy, sitting up. "Hey, whazz the big idea wearing a bedsheet? House on fire or something?" He stared about him dizzily, and it seemed to him that the walls of his room were unaccountably missing. He looked at Mike, who had piled two pillows on his head, and nodded

sagely. "I remember now. We musta took a cab to the Turkish baths. Best thing in the world for a hangover." And he fell back again in his bed and rolled over.

Pyteles and Murra had climbed up to join their chief.

"The journey through the dimensional divider has confused them," said Lito. "It has been helped by the fact that we look so much like them, and that our world is so like their own, at least superficially. We must be patient."

But Pyteles shook his head in doubt.

"There is no time for patience," he said. "We have little more than the barest minimum of time before the machine must return them. And I cannot understand what they say. Their words bring only vague, unpleasant images."

The sound of the conversation seemed to penetrate to Mike Tracy. He peered out from under the pillows, then sat up on the sagging springs of the couch and looked down to where other Quennians stood. There were dozens there now. He rubbed his eyes, managed to walk unsteadily to Sammy's bed, where he plopped down and whispered something. Sammy opened his eyes and smiled lazily. Then, for the first time, he too became aware of the presence of the others. He got out of bed quickly.

Suddenly Sammy cried in alarm.

"Thizzizz a lynching! See all them white sheets? Thazz a secret organization!"

"Must be friends of the guy next door," Mike said, fearfully.

Lito smiled warmly at them.

"Come with us," he said. "We must hurry, for the High Priest of Quenna awaits us." The two men yielded to the gentle pressure of his hands and followed him down the jade altar, down to where Kora-san stood with Seydi among the others who had appeared after the machine had stopped.

"Had us on a scaffold already," Mike muttered. "These—" But he stopped speaking as Seydi made a sign and pointed to a red disc that seemed to lay on the floor. Suddenly the red disc began to grow larger, spreading like the flow of a liquid, until its area had encompassed the place where Mike and Sammy stood among the first five scientists. Then, all at once—the hall disappeared and they were standing in a brilliant, jeweled chamber!

JUST that way it had happened. One moment the disc had been moving, the next— The astonishing transformation, or transference, or whatever it had been, had its effect on Sammy and Mike, but only the former expressed it. For the moment he was oblivious of everything else in the chamber. He winked one eye and observed:

"Say, thazz a damned good trick," and the way his feet began to slide apart, he would have sprawled backwards if Kora-san hadn't caught him.

There must have been hundreds of people in the chamber who had witnessed the entire episode, and a ripple of wonder went through them. They were all magnificent specimens, beautifully built, the men handsome, the women soft and lovely, dressed in variously colored robes and tunics. But of all of them, only one wore the silver circlet which the five scientists had put on their foreheads. He was a bearded man, clad in a robe of pale blue, and he rose from the dais where he had been seated at the head of the room.

"Travelers from the world beyond the divider," he said, solemnly. "You have come to us after generations of hope and work. Your mission will be honored as long as there is life in both our worlds. According to the teachings of the prophet Tallu, who more than five hundred *rthus—*"

"Whazzat?" said Mike. "Come again?"

The High Priest of Quenna stopped and looked to the scientists.

"They do not understand," he said slowly, each word coming from him as if it had been wrung out in pain. To Mike he spoke as one might to a child, his eyes searching. "Do you understand that you are in another world, traveler?"

"Certainly," Mike beamed. "I should say so. Whazz the sense of drinking the stuff if it don't take you to another world?" He reached into a trousers pocket and withdrew a large brown bottle. "But everybody's gotta bring his own," he said. "I got one chiseler now."

"I think I understand," Murra said presently. "He holds a flask filled with an elixir to which he ascribes this—"

"We are lost!" Pyteles broke in. "Their language is a meaningless jargon, their comprehension is too vague." He rocked in despair.

"Travelers," said the High Priest, "if you understand, give us a sign. You have come to the world of the Fourth Dimension on a mission of the gravest importance. Quenna offers you the fruits of its great civilization, all that its science and history have to offer." He waited for them to speak, and the vast chamber was hushed, the people silent.

Sammy Green rubbed his eyes for the tenth time. Words seemed to be echoing in his mind, fantastic words. He looked at the people who surrounded him and then at the High Priest.

"Okay," he said, quietly. "Keep talking. I know what you're saying, even if I don't believe it."

"But you will believe!" the High Priest burst out eagerly, his eyes blazing. "Listen to my words, for your coming was ordained by the great Tallu, who divined the presence of your world in ancient days, who commanded that the people of Quenna break through the barrier to the world of three dimensions.

"It is our religion," he went on, "a religion of penance. Once Quenna was divided into warring nations, its entire energy and genius spent on the mechanics of destruction. No world has ever seen the horror that stalked through Quenna for generations.

"And then the gods sent Tallu, who united Quenna. It was he who made possible this blossoming world, who turned our science to constructive channels, who brought us peace. But for the sins which had stained its history, Tallu ordained that the souls of the people of Quenna would never be free until they had passed on the blessings he brought us. We have labored through ages in obedience to his word."

The High Priest inclined his head in reverence, and everyone followed his example.

"We built a mighty machine with our science," he went on, "but its materials were so rare that only one like it could be made. We knew that it could pass the barrier to your world but twice, and then its own force would destroy it, and we knew that Tallu's word had but one chance of fulfillment. It had to return with living, intelligent beings the first time.

"Moreover," he said, a strain of anxiety in his words, "there would be little time, so little time in which to give to the people of the other world the secrets of our science and our government. It seemed an impossible task had been set us. Had we known your language, we might have prepared volumes with everything written down, but it is only these strange silver bands that enabled us to understand your language, after you had arrived, and even that not too well.

"And so we have another method, one that is so revolutionary, so undreamt of, that it frightened our scientists at first. It may frighten you too, so we will first show you something of our world before we ask you to take the decision in your hands."

HE stopped speaking and came forward to the two men.

"These men of science will be your friends and your guides," he said. "They are called Lito, Pyteles, Korasan, Seydi, and Murra."

Mike had been staring around all through the long speech, now and again shaking his head, and once taking a drink from his bottle. Now he bent close to Sammy.

"Who's 'at monkey?" he said. "Listen to that stuff he gives us. Don't give your right name."

Sammy brushed his hands over his face in confusion.

"Gimme that bottle," he said, shakily. He took a long gulping drink and gasped for breath. Slowly, his beatific smile returned. "This," he said, bowing to Mike, "is my friend, Chowderhead, and I am Sambo wambo."

"So let it be," said the High Priest. "Henceforth, all Quenna will know you as—" he paused momentarily in astonishment as Mike delivered a kick to Sammy's shins—"as Chowderhead and Sambo wambo."

"Lizzen, you!" Mike snarled at the High Priest. "If you're—" He had no chance to finish. As the High Priest had spoken, red discs had formed on the floor of the chamber, discs of various sizes. Now, suddenly, entire groups of people began to vanish from sight, as others just as abruptly materialized from thin air. Mike and Sammy were in the jeweled chamber but an instant longer as people kept flashing in and out. Then the chamber disappeared, and Sammy and Mike were alone in the white hall for a moment. Then Lito appeared at their side and the hall was gone. It was like something out of an insane kaleidoscope, and when it stopped, Sammy and Mike were standing somewhere in bright sunshine, and one by one, the five scientists popped into being all around them.

They were standing in the center of an empty plaza, in the heart of a valley formed by rolling green hills.

"Our people want to see you," said Lito, and before he had finished speaking, the plaza was filled with a huge throng on all sides of the little group. Instantly there was a succession of deafening cheers. From somewhere, strange, lovely flowers showered down from the skies.

With the same abruptness, the plaza and its cheering thousands was gone, and they were standing on a sort of terrace before a low, dome-shaped building. The valley lay far below them now.

They seemed to be in a city now, but one that had been planned with infinite skill.

"Look," said Murra. "Here is one of our ancient cities. It is scarcely habitable according to our standards. How does it compare with your world?"

AN endless panorama of plains and hills stretched before them, threaded by white ribbons of roads, decked on every side by acres of blossoming trees and flowers. Houses of every color were ranged in pleasant design, but though they were fairly close together, the total effect had not obscured the natural beauty of the landscape. The air was clear and touched with fragrance.

"Thazz still a good trick," said Sammy.

Murra's face clouded.

"Why do you call it a trick?" he

asked. "Do you not believe what you see?"

"What kind of a Turkish bath is this?" Mike demanded. "Whazz the idea of movies going all the time? Whazz everything jumping for?"

Seydi nodded in comprehension.

"You are puzzled by the sudden appearance and disappearance of our people, are you not?" he said, unable to restrain a smile. "It may be difficult to explain to you, for it is one of the main differences between our dimensional worlds. The Fourth Dimension is motion,* and we are capable of—how shall I put it?—of assuming the form of motion itself."

Sammy scratched his head a moment.

"Izzat the only difference between our dimension and this one?" he asked.

"Superficially, yes. Our dimension is like yours in every way, except that the Fourth world of dimension is possible. In your world, there undoubtedly exist one-dimensional objects—the point; or two-dimensional objects—the line; or three-dimensional objects—you, Sambo wambo and Chowderhead."

"Listen, buddy!" Mike snapped. "Are you looking for trouble? One more crack like that and I let you have it."

Murra took a step back and hesitated.

"If I have said anything to offend you," he began, when Sammy pulled out the bottle and thrust it at Mike. Immediately, wrath departed, and Mike was swaying, his eyes fondly shut as he nursed his drink. Sammy waited, trying to think.

"But how," Sammy said, presently, "do we two make the jump, if we come from the three-dimensional world?"

MURRA seemed reassured by Mike's quiet demeanor. "I was coming to that," he said. "I showed you how one, two, and three-dimensional objects exist in your three-dimensional world. Why then cannot a three-dimentional object exist in a world of four dimensions? You see now that the answer is that it can and does exist."

"Nope," said Sammy. "It ain't so. There's a screw loose someplace, but I can't place it yet. It sounds okay, but —" He scratched his head again in perplexity.

The other four scientists had stood by, listening to the conversation. Now Lito said:

"You do not understand yet, and there is no time now. We have much to show you before we tell you of your mission, and final understanding is included in it."

"Okay," said Sammy. "Mind if I take a nip?" Without waiting for an answer, he wrenched the bottle from Mike. When he had taken the bottle from his lips, he realized vaguely that they were now within the building before which they had stood. Gigantic wheels and machines of peculiar design were everywhere, turning noiselessly, and the air seemed to crackle.

* The red discs are an example of this dimension of motion. They act as transformers of a sort, taking bodily forms and transforming them from their obvious three dimensions to one of four, the fourth being motion. The apparent result seems to be one of disappearance, but only because the eyes cannot match the speed with which the event occurs. For instance, we know that when any three dimensional body approximates the speed of light, that body, according to the Fitzgerald Contraction theory—apparently doesn't exist anymore! In reality, the body does not cease to exist. That would deny one of the basic tenets of science, which holds that matter cannot be destroyed, but its form may be altered. That is what happens when the speed of light is reached—the body assumes a four dimensional form, the form of motion itself, the invisible form. In this form, made possible by the action of the disc-like transformers, instantaneous movement from one place to another is possible. Thus, when it appeared that one room vanished and another took its place, in reality it was Sammy and Mike who instantly moved from one place to another—as that vast crowd of our people appeared before them and then went their way.—Ed.

"Here," said Kora-san, "we make our weather. The bright sun shines endlessly for us, and rain falls only when it is needed, and then only where we direct."

Again the scene changed, and they were in completely new surroundings, standing on a plain. Far off they could see a circle of men in apparent work. Suddenly, before their eyes, the plain started to break into deep furrows, the earth turning richly under an invisible plow. "We have harnessed the energy of the atom," said Kora-san. "It obeys us as meekly as all Nature."

The furrows had formed quickly for miles, and a single cloud had appeared in the sky. They could hear the sound of rain falling softly to the earth, but where they stood there was no rain. Then, looking on, they saw the cloud moving slowly over the field.

"We have precipitated a cloud to water our new field," Kora-san explained. "Now the field will be vitalized, and the produce of the earth will rise quickly."

It was as he had said. In a short interval, buds began to spring from the earth, growing almost fast enough for the eye to observe the wonder. The cloud kept moving about the fields, and the buds became stalks.

"The day's work is almost done," Kora-san said. "Agriculture is tedious labor for us. Tomorrow we will harvest these fields."

Sammy nodded obediently and took another drink from the bottle, making certain there was some left. His head was reeling, and he had enough self-consciousness left to wonder whether it was the Scotch or what he was witnessing. He wiped his lips and waited, watching the ever-present red disc enlarge under his feet.

With the instantaneous change to which he was almost acclimated, Sammy perceived that they had come to steep ranges of mountains. On every side the great, snow-capped peaks thrust to a sky that seemed overhead by only a few feet. Miles below them were the plains where Quennians tended their fields, but even at their height there were still trees, huge-trunked and green, and the air was warm and dense. It was a scene of breath-taking beauty.

"Here," said Kora-san, "our Council has chosen to erect a new city, and the workers will be here shortly." They waited a few moments, and people began to flash into existence on every side of them. They moved about in leisurely bands, consulting with each other until new machines which neither Sammy nor Mike had seen before made their seemingly magical appearance among them. The bands separated and men took charge of the machines, each to his own task.

BEAMS of light flashed from one of the machines, and close by, one of the largest of the peaks began to thin out and vanish. It was as if some incredibly large cleaver had cut off the peak when the work was finished, and a plateau had been made among the peaks. The work of the machines dovetailed, and other peaks disintegrated, until a flat-bottomed crater had been fashioned among them. Then a red disc grew along the plateau, and all at once the discs were laden with blocks of marble and granite and various woods, the building materials transported miles high in the twinkling of an eye.

"Soon other workers will arrive with their machines," Kora-san said, "and the building of the city will begin. Our greatest architects will take charge. They have been years in planning, but it will take but a few days for the actual construction." He smiled at Sammy. "We understand your feel-

ings," he assured him. "We are showing you the marvels of our civilization knowing how you will react to them. And now let us take you to one of our vacation cities."

Before them there now appeared a scene that somehow brought a smile to everyone. Again, they were in a city, but even less of a city than the other had seemed to be. Everything here was arranged with ingenuity, with freshness and daring. The houses were striped and dotted in gay colors, the landscaping had been done with an eye for novelty.

But the most apparent fact was that the people were all aloft! It seemed as if no one was on foot, and the whole population had found wings. And this was true, for each Quennian wore an odd little pair of metal wings upon his back, wings that flashed with blinding speed. The air was filled with laughter and singing, and people darted about in pursuit of each other, or came swooping down to the gay houses or seemed to be practicing complicated, magnificent maneuvers.

"We have lately perfected this fascinating art," said Lito, laughing at the spectacle. "It has taken our vacationists by storm, and they have almost given up every other form of sport. This is our city of fliers, and there are more vacationists here than at any resort we have, and we have three resorts for every workaday city."

It was an irresistible scene, almost more than it was possible to watch without at once feeling the compulsion to forget everything else and join the robust, beautiful people in the sky. Just then, several young girls swooped low and Mike, who had been looking on open-mouthed, made a grab for one of them. It looked as if he had caught her ankle, but she flashed back and escaped. The Quennians seemed horrified at the action, but Mike only scowled.

"What the hell *is* this?" he said. "I coulda sworn I had her, but she just wasn't there."

Sammy snickered. "He's girl-crazy," he said to the scientists. "He's alla time chasing the dames. Got trouble with his dimensions."

"I only got trouble with one girl," said Mike, "and if you keep away, I ain't gonna have that either. Fine friend you are."

"Lay off my ties," Sammy said. "Your girl is wild about them."

"Yeah? Who sezz?"

"Passa bottle, please," said Sammy. "Ooops! Beg pardon. I had it alla time in my pocket."

THE Quennians silently watched the two men trying to balance themselves, their eyes and expressions inscrutable. Sammy had almost finished the bottle, and he thrust his tongue out and gulped in huge breaths of air. Finally, Lito said:

"There is almost no time left, and there are still one or two things to be seen." His voice was subdued as he added, "There are greater miracles in Quenna than those you have seen. Our genius is not entirely concerned with leisure and beauty. *Here!*"

The gay city was gone. Again they were in a building. Here the pastel colors of the walls were broken by arched windows, and there was a constant bustle of activity around them. The beginnings of a thought came to Sammy, the recurring surprise at the little attention that had been paid to them wherever they had gone, but the thought wandered away. Certainly here there seemed to be too much to do for anyone to stop and gape at the visitors, whoever they were.

"We are in a hospital," said Lito.

"There are only two hospitals in all Quenna, and our healing arts are confined almost entirely to surgery, for we have conquered all disease. There are no plagues among us, no harmful bacteria. Our surgery effects the repair of bodies that have suffered from accidents, and it even counteracts the ravages of time."

The scene changed to where three men bent over a prostrate body, their hands working swiftly, using queer instruments.

"This man is more than three hundred years old, according to your standards," Lito went on. "He is being given a new heart for the third time in his life. It is not unusual in Quenna. I am more than fifty years older than the man you see here, and in my lifetime I have come to our surgeons for arteries, and twice for new limbs. But let me show you something—"

Lito led them through a door and consulted with a man. Presently, several other men came into the room, among them one who was evidently a doctor. The doctor quietly took hold of a man's arm, then suddenly he plunged a long blade into the other's chest. The blade came out covered with blood, and drops of blood fell to the floor.

Instantly, the doctor took hold of a long, glass-like needle and inserted it into the gaping wound. When he took it out a moment later, there was no sign of the wound. Not even a scar remained.

"Instantaneous healing of the torn tissues," said Lito. "Complete repair and recovery within a few seconds." The man who had been stabbed smiled at them and followed the others out.

Mike shook himself, and all of a sudden he howled:

"Help! Police! Murder!" His face was turning blue when Sammy clamped a hand over his mouth. The Quennians seemed more distressed than ever. They had been smiling less and less as they observed the two travelers, and the same fear that had been in their eyes when they first waited for the machine to return with these two men, that fear had returned. They waited until Mike subsided, then, at a sign from Lito, they left the hospital as they had come.

AND now they were back in the jeweled chamber, and the High Priest was staring at them. He spoke a few words to the other Quennians in a strange language and Pyteles answered. Then the High Priest said to the two men:

"Our allotted time is almost gone, and our mission must be given to you. But I speak to you honestly and openly when I tell you that I am tortured by the fear that we are failing. You do not seem to understand what we have shown you—"

Sammy teetered back and forth and blinked at the High Priest.

"Whazzat?" he demanded indignantly. "Who told you that? We know what we saw. Fine show. Best I ever saw. Nothing but miracles. Yessir!" he repeated vehemently. "All miracles. Dazzled. Yessir!"

"Very well," said the High Priest, bowing his head. He seemed to be trying to control himself, summoning additional strength from within himself. "You are our one hope," he said, looking up. "You are also the one hope of your own world, the only possible link between our two worlds. Upon you rests the success or failure of our sacred obligation to the word of Tallu, and the happiness of untold billions of people in your world.

"You have seen a little of what we can do, of what we know. You have seen enough to understand that here is a life with meaning. There are no wars among

us, no plagues, no strife, no famine, no slavery to labor. Our science and our government are incomparably further advanced over yours. And all this is yours for the taking. Such is the command of Tallu. The fruits of this life must be handed on to you."

A look of humility had fallen on the Quennians as the High Priest continued.

"Yet how are you to take with you all that we have shown? For soon you must leave, and there can be no return. There is but one way, the way I mentioned when we met before."

He opened his palm. A small, transparent vial lay there, half filled with a colorless liquid.

"Here," he said, "is the answer. If you were to empty the contents of this vial into the sea, it would of its own accord be multiplied ten million-fold. From your sea, it would rise to the clouds, together with the other vapors that rise from the waters of your world. The clouds would rain it upon your earth, and in time, some part of the contents of this vial would find its way to every corner of your world, to every stream and river, every well. And—" he hesitated a fraction of a second, *"every part of your world that was touched by the liquid in this vial would become accessible to us!"*

The High Priest rose from his dais.

"Do you understand what I am saying? The people of Quenna could come among you, to spread their teachings. In that way, and that way only, can our religion have meaning and the word of Tallu be fulfilled. We would make of your world a paradise beyond your wildest dreams!"

Sammy fumbled at his lips and muttered:

"Wow!"

"You do not understand?" said the High Priest. "There is no time now for explanation. This plan is the labor of the greatest minds in Quenna. It is the only possible bridge between our dimensions once our machine is gone, as go it must when you return. And all this rests with you. This awful, historic task is yours to bring about. Will you do it?"

The six Quennians fixed their eyes upon the two men, and they seemed to have stopped breathing. Neither Sammy nor Mike uttered a sound as they stood there, holding on to each other. The High Priest's words came again as he held out the vial.

"Will you take the means of bringing you to another world?"

Mike stirred.

"Another world, huh?" he mumbled. "Whazz going on now—somebody passing out drinks?" He stumbled forward and took the vial. "Certainly," he beamed. "Thazz for me and I'm for it and we're for each other. Don't mind saying my bottle's empty. Many thanks." He finished his speech with a series of hiccups. "Anything you say," he said loudly, with a flourishing bow that almost landed him on his face.

The Quennians hadn't moved. The High Priest raised his hands in supplication. The red disc on the floor was growing again—

Once again they were in the vacant, white hall where they had first arrived. The huge machine was waiting upon its jade altar. Lito led the two travelers up the stairs to where the room that had been scooped out of its own dimensional world still stood. Mike and Sammy could scarcely walk. Their eyes were half shut and they seemed oblivious of their surroundings.

When Lito had helped them sit down again on the couch and the bed, he turned away and softly made his exit. He walked down the carved stairs and motioned to Seydi. The transparent walls of the machine began to fog, and

the first rays of color started up from the altar—

MIKE lay quietly on the couch and felt the springs rolling under him. He turned sideways to look at Sammy, but Sammy was lost in a maze of twisting colors that seemed to fill the room. Mike groaned.

"Oh, my head," he said. "Everything's still going around."

Sammy was emerging from the colors.

"Mike," he said, holding his temples. "Do you remember—" He fell back on the bed, the question unfinished.

"Yeah," Mike grunted savagely. "I remember. You went out with my girl, you double-crosser."

"They're my ties," said Sammy, shaking his head. "That ain't what I meant. We've been someplace, Mike. Where was it? I can't get it straight. I can't." He was looking at the vial that Mike held in his hand. "That's it," he said, puzzled. "They gave it to us. It's important. Give me that little bottle."

"Who gave it to you?" Mike demanded. "Smy bottle. You finished the other one. Went out with my girl."

"Gimme that!" Sammy said, but he couldn't get off the bed. "If you don't give me that bottle, I'm gonna take your girl out again."

Mike turned over and aimed the bottle at Sammy's head. It flew across the room and missed by a yard, striking against the wall and falling to the floor in a dozen pieces. There was a stain on the wall where the vial had smashed. Little rivulets had formed on the floor, and the liquid soaked into the old, dry rug. From the other side of the wall a voice howled a string of curses.

"Whazz he want now?" said Mike. "Whazz eating him?"

"I dunno," said Sammy. "You shouldn't have busted that bottle."

"Why not?"

"It's eating up the rug," said Sammy. "What did you have in it?"

"Poison," Mike said gloomily.

Sammy forced himself up, his feet dangling off the bed.

"Whazz that?" he said. "You taking poison?"

Mike began to sob.

"She's my girl," he cried. "I'm crazy about her and you're taking her away."

"Well," Sammy said, hopelessly confused now. "They're my ties." He tried to think about it and gave up. "You shouldn't take poison," he said. "You can wear all my ties and I won't see your girl."

"I don't believe you," said Mike, still sobbing.

"Ah," Sammy sighed, "I can't stand her anyway. She's alla time talking about you."

"Yeah?" said Mike. He stopped crying. "Gee, thazz wonderful! Thazz marvelous! What am I getting drunk for?"

"You're alla time drunk," said Sammy. "Know what you need? A good old Turkish bath. Take away the hangover." He was thoughtful again for a moment. "Turkish bath," he mumbled, holding his aching head. "Boy, do I get them dreams when I'm high. Coulda sworn—fourth dimension—" He laughed foolishly. "Come on," he said, getting up. "I'm gonna treat you to a Turkish bath. It's all my fault."

"It's my fault," said Mike. "I oughta buy a tie."

"It's about time you bought a tie," said Sammy. "Are you ready?"

"Sure I'm ready," said Mike, getting to his feet. "I was just waiting for you. You don't look so good."

"I don't feel so good either," said Sammy, staggering to the door and opening it. "I guess maybe we overdid it again, huh?" They started down the stairs, holding on to each other. "I'm

gonna buy you some ties," said Sammy. "Some beautiful ties—"

LONG before, the machine had clouded, and the Quennians stood around it watchfully, waiting for the inevitable to happen. Their faces were cold, impassive masks. And then it happened. The machine cleared for an instant and shattered with a deafening report, and long slivers from the quartz cube fell to the floor of the hall.

"We have failed," said Pyteles. "They were stupid animals, too stupid for our purpose."

"No," said Kora-san. "No living being could have withstood the things we showed them. Even the faintest glimmer of intelligence would react to our miracles. They were irresistible."

Murra picked up one of the bits that had fallen from the machine.

"Irresistible," he sneered. "I too found it irresistible. Those lovely panoramas we manufactured, the cities and the people. I could have cried out in pain a hundred times." He looked out from the vacant hall to the sullen landscape. It was an empty, barren land. "We have Tallu to thank for this," he said bitterly. "We are the last six living souls in all Quenna, and soon we too will be gone, unless—"

Lito began to tear away his features.

"Kora-san is right," he said incisively. "We have not failed. The humans will do what we asked, and then their world will be ours, a vast supply house." His face had disappeared, the flesh torn away, disclosing a tiny head covered with white, scaly skin through which a single eye peeped. As he spoke, his razor sharp teeth clicked sharply. "It will not help us to blame Tallu," he said, tearing away at his torso. "He knew everything. He left us a plan that could not fail."

Pyteles laughed wildly.

"It will fail," he said. "The plan was built on a falsehood. Even the great Tallu did not know that the people of the world he discovered so long ago were without intelligence. They could scarcely walk, their language was uncertain, their words slurred. Intelligent beings would have had their minds fired by what we showed them, but not those two."

He stood close to the instrument board that remained in the hall, and his fingers idly spun the levers. With each touch of Pyteles' hands, the scene changed from place to place. Now there was a jeweled chamber, now a plain, now mountains, now a city. He touched other levers and sounds accompanied each scene, but since he was careless, the sounds didn't match the scenes. Laughter floated mockingly over an empty plain and crowded cities were silent.

"This is our genius," said Pyteles, suddenly vicious. "This is the power of our dimensional prison—the power to imitate, the power to project images that are real to creatures of three dimensions. But even there we were wrong. Our plan was filled with flaws."

"Why do you say we were wrong?" Kora-san asked.

"Did you see what happened when one of them suddenly tried to grasp a woman who flew near him?" Pyteles asked. "He felt nothing but air, for there was no one there. An intelligent creature would have started guessing the truth then, but not those two. It meant nothing to them. Their senses were too dull, and we needed beings upon whom we could play with our pseudo-world, with our fancied treasures."

AS Pyteles spoke, the others had followed the example of Lito, tearing away the bodies in which they had

masqueraded. They emerged as thin, small creatures whose bodies seemed unsubstantial, and when they touched, there was no contact but a seeming merging of the bodies. They were wraithlike even in their movements, hovering over the ground without limbs, moving like smoke in the empty hall.

Now the six shadowy creatures flitted out of the hall and came into the gloomy out-of-doors. There was not a sound nor was there anything to be seen. It seemed as though a curse hovered in the moist and fetid air.

"Nevertheless, you are wrong," said Lito. "They understood us, and they took our vial. Our story was too convincing, and the element of religion was too powerful for them to fight. They will empty the vial into the sea, and their storehouses will be ours."

Murra sneered again.

"Our mighty science," he laughed thinly. "We should have spent our time conquering the plague that overcame our meat animals. Maybe we could have done something that way."

"No," said Kora-san. "Even in the day of Tallu, our meat animals were dying. There was no way; we had to break through to another world, and our plan was great. We are too shaken by the things we have seen. Our loved ones have starved all around us, and death has clouded our minds. We are the last, but we will survive."

It was dusk. The dark sun was fast falling behind the horizon, and the hot wind that blew from the swamps that were on all sides was scattering the frail bodies of the Quennians.

"Perhaps," said Kora-san, "we should pray. Let us not be ashamed to pray. It comforted the ancients."

"To whom shall we pray?" said Pyteles, angrily.

"To our unknown ancestor," said Kora-san. "He who, in the dark ages past, was the first meat-eater."

The six creatures were silent. At length, Murra said,

"No. If we are to pray, let our prayer be to Tallu. It was he who knew of this other world, and who left us the plan to conquer it. And perhaps we will conquer it, and all its billions of people will form the larder for a new world of Quenna." He paused a moment, then said, "There is nothing to do now but wait. Soon the vial will work, and we will cross the divider to our new world. We must wait."

"Yes," said he who had acted as the High Priest. "Let us wait—"

INVISIBLE MEN OF MARS

(Concluded from page 43)

you ever heard of me?"

Nearing the fleet, I broke out my colors—the colors of the Prince of Helium; and a great cheer rose from the deck of every ship that could distinguish them.

The rest is history now — how Helium's great fleet destroyed Hin Abtol's fleet, and the army of Helium routed the forces which had for so long invested Gathol. When that brief war was over, we set free nearly a million of the frozen men of Panar; and I returned to Helium and Dejah Thoris, from whom I hope never to be separated again.

I had brought with me Jad-han and Pan Dan Chee, whom we had found among the prisoners of the Panars; and though I was not present at the meeting between Pan Dan Chee and Llana of Gathol, Dejah Thoris has assured me that the dangers and vicissitudes he had suffered for love of the fair Gatholian had not been in vain.

WIDESPREAD MISCONCEPTIONS

By GUY FAULDES

There are a lot of things we just take for granted—which is where we make a mistake!

IN spite of the very great advances made in in the fields of medical research in the past centuries, many superstitious and erroneous conceptions remain prevalent today. Their origins are lost in antiquity as old as the world itself. Since the dim dawn of time they have been handed down from father to son until finally they lodged in early medical journals and in the minds of the people as absolute fact. Some of the most widespread misconceptions are:

That the heart is located on the left side of the body.—Most people, including the well-informed, will state unhesitatingly that the heart is usually found on the left side of the body. Yet this is far from the truth. The misconception arises because the left ventricle, the largest of the four chambers, is on the left side of the heart; therefore the beating of the heart is felt more readily on the left side of the body. The truth is that the heart is almost exactly in the middle of the body.

That eating green apples will cause a stomach ache.—For centuries this popular myth has persisted, despite the valiant attempts of medical researchers to prove otherwise. The reason behind this fallacious belief is simply that unripe fruit is harder to chew, and is usually insufficiently masticated when swallowed. It is this which causes the stomach ache, not the unripe fruit. If the apple or fruit is eaten slowly and chewed sufficiently, the stomach is absolutely indifferent as to whether it is ripe or not.

That beef tea is nourishing.—A very widespread belief, but very much unfounded. Actually, beef tea contains so little nourishment that six large cupsful have less food value than one slice of bread.

That singeing the hair is beneficial, causing it to grow more abundantly.—This is one that has most of the barbers fooled to this day. It is almost axiomatic that singeing the hair is an ideal way to invigorate it. Nothing could be more from the truth. It is believed that singeing aids the hair by "sealing" the hair ends and preventing the loss of various vitalizing fluids. Since no fluids "exude" from the ends of the hair, this precaution is obviously unnecessary.

That it is more dangerous to prick yourself with a pin than with a needle.—The basis of this common belief lies in the fact that needles are made from steel while pins are made from brass. But a wound from a pin is no more injurious than that made by a needle. The important thing is what germs are introduced into the wound, not what caused it.

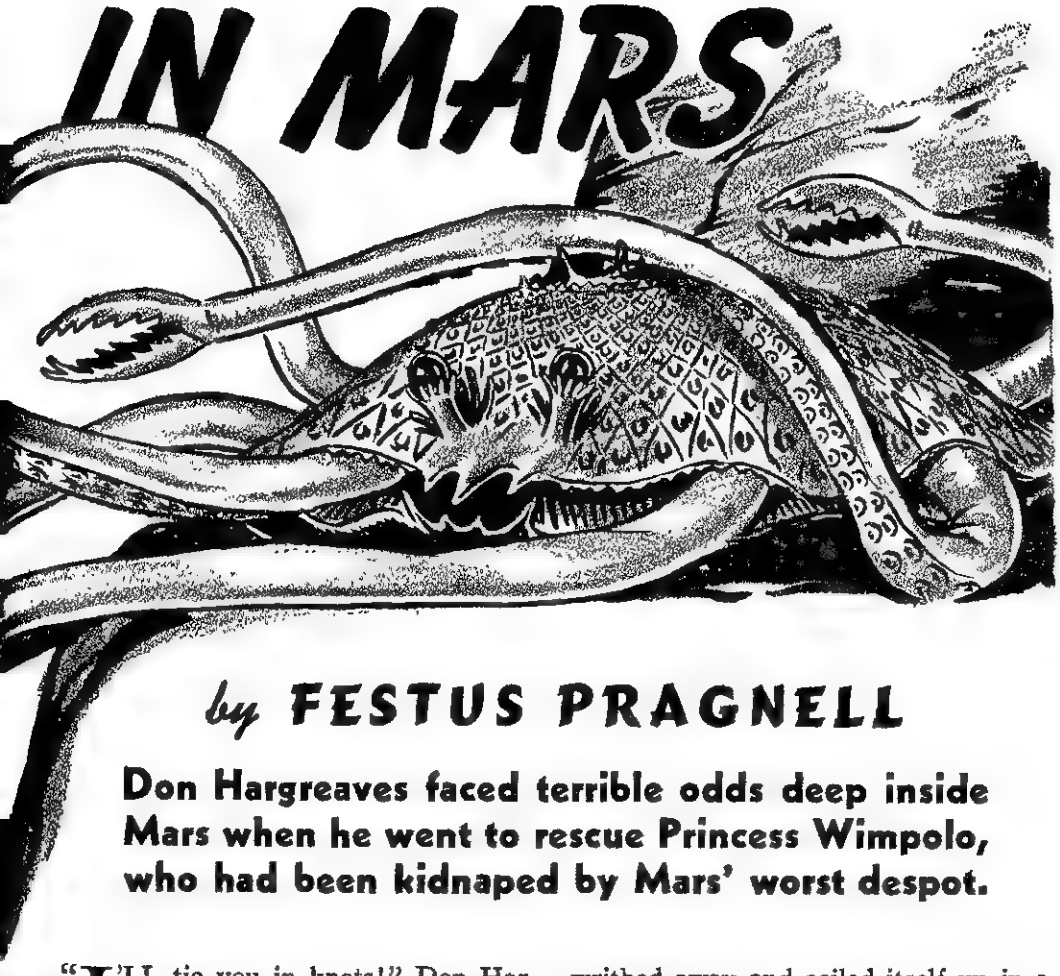
That pressing the upper lip or placing a piece of ice at the base of the neck will retard or stop a nosebleed.—In a vast majority of cases nosebleeds stop themselves, so any attempted remedy will generally come in for a slice of the credit. It has been shown that these most common preventatives are merely wastes of energy. Natural coagulation does the real work in stopping excessive flows of blood.

"OOPS - I OVERSHOT!"

KIDNAPED

The zekolo went into action, and apemen heads rolled to the floor

IN MARS



by FESTUS PRAGNELL

Don Hargreaves faced terrible odds deep inside Mars when he went to rescue Princess Wimpolo, who had been kidnaped by Mars' worst despot.

"I'LL tie you in knots!" Don Hargreaves panted, heaving at the massive scaly form of Princess Wimpolo's pet snake. The snake's tail, arching over, took him round the middle and held him in mid-air. Uncoiling suddenly, it shot him forty feet into the air, spinning rapidly, and caught him as he fell.

That annoyed Don. A forty foot fall was nothing to him in the gravity of Mars, provided he landed on his feet, but he hated being made to spin like a top.

"Bad, bad!" he scolded, slapping the snake soundly under one of its ears.

The snake was not hurt. Its scaly hide barely felt his hand, but its dignity was offended. Like a sulky child it writhed away and coiled itself up in a distant corner, almost entirely hidden by curtains and draperies.

Don heard the Princess laughing. Her enormous left hand picked him up and placed him beside her on her couch. Don was still giddy, the enormous room spinning round him like a whirligig.

"Look here, when are you going to marry me?" he demanded, when the room had steadied somewhat.

For though she was ten feet tall and would have weighed on Earth something approaching half a ton, and was, furthermore, daughter and heir of the overlord of all Mars, while he was an overworked, underpaid clerk from Earth and a small one at that, the two were perfect friends.

"Bad, bad!" she mimicked him, indulgently. "You know that gentlemen are not allowed to ask ladies questions like that on Mars."

"I shall never understand your Martian ways," he said. "In my world it is the other way round."

"Barbarity," she murmured, with a shiver, but added, "how quaint!"

Don frowned. He was still unable to understand her. Several times she had told him that she loved him and promised to marry him, always in a casual manner as though it were a mere trifle. When he tried to pursue the subject she cut him short, pretending to be annoyed. Martian conventions were very strict on men, and the ways of Martian girls beyond understanding.

"Don't be impatient, Don," she said. "One day you shall be my husband and the greatest in all Mars. Our Eugenics Control approves Earth-Mars unions saying that fresh blood from another planet will put new virility into our race. We need it, after our thousands of years of underground life."

Which Don thought was queerly cold-blooded talk.

"Then why the delay? Why can't we be married now?"

For a while she did not answer.

"I'd like to," she said at last, "but first there is much to do. I cannot think of my private feelings while the whole civilization of Mars is in danger."

Her words startled him with their unexpectedness.

"Is it in danger, then? I don't follow Martian news much. I don't understand it too well. I knew you were having trouble with savage animals lately. Packs of ferocious apes, I understand, have attacked and destroyed several cities. But is it as serious as that?"

"It is," she said. "These apes, you see, Don, are half human. Like the snakes and the rats, they breed in the innumerable smaller caves of our world, so many of which are too small, too dangerous or too rambling to be explored. In some places they have been a terrible pest. A section of Mars many thousands of cubic miles in extent has been solely occupied by them for generations. And slowly, because of their depredations, their killings and their kidnapings, the people of Mars have had to fall back until the area occupied by the apes has increased to several times its original size. And the larger the area they occupy the faster their numbers increase.

But lately our trouble has assumed a new and terrible form. The ape-men have suddenly become much more daring than ever before. There appear to be far more of them than anyone had ever dreamed, and they are attacking whole cities. And although we thought that the defenses of our cities were ample against such creatures, yet they have completely overwhelmed town after town. Sentries at gates and on city walls tell us that their deathray boxes suddenly go out of action as soon as they try to use them on the apes. Watch."

PRINCESS WIMPOLO twirled knobs. From a recess a blue light glowed. The television clicked into action.

In the globe they saw a picture, three dimensional and colored, of a vast Martian cavern. What appeared to be pillars of fire shooting up out of the ground lighted the view. Actually they were carved pillars treated with the cold light that the Martians used so liberally.

A beautiful city was before them. Many of the walls had fallen down. Many roofs were caved in. In the place of men shaggy caricatures of human beings, long-armed, short-legged, bar-

rel-chested ape-men with bodies covered with blue hair, apart from red patches on cheeks and chest, roamed the neglected fields and streets. Their toes and fingers had claws and were webbed like the toes of ducks. Most of them wore odd articles of clothing, a belt, a conical helmet or a pair of shoes. And nearly all carried in one hand an iron club and in the other that most deadly of all weapons, a black box producing the nerve-stopping deathray* of Mars.

Don wondered why the view was so dim. Slowly it faded until the sphere was completely dark.

"You see, Don," explained Wimpolo, "those beasts know enough to put the television out of action. They can use nearly all the things they find in the cities they destroy, and they leave nobody alive in them when they go. They are horribly cunning. When my father's army, with its warplanes and battle-spheres, gets to that city, all those ape-creatures will have vanished back into the caves, leaving a sacked and empty city. Bodies only will be found, bodies of old people and children. For the young adults, men and women, will have vanished. Do not ask me what has happened to them. It is one of those things one does not like to talk about."

"What is the name of that city?"

"It is Selketh, forty of your miles from here."

Don caught his breath. For forty miles in Mars is as ten on Earth.

"Then you are not safe even here? You should go to somewhere safe."

"Nowhere is safe," said she, sadly. "We thought that Selketh was as safe as any city in Mars. And I don't like running away. Besides, I have my way of escape, if it should be necessary. Have I ever shown you my secret room?"

"No."

"Then come. But remember to say nothing to anybody about it."

She took him through another room to where a cunningly hidden door proved to be a way into yet another room. A transparent sphere rested here, eighteen feet tall, with a square compartment inside. In front of the sphere gaped a round hole.

"One sign of danger," she explained, "and I could be racing through the tunnels to anywhere in Mars in a few seconds. My father, the king, arranged all this long ago so that whatever happened while he was away, earthquake, fire, war, revolution, the royal family would be safe."

"I'd like to talk this over with Professor Winterton," Don said.

"I'll call him."

SHE sent for the Professor, using the automatic television system of the palace. The white-haired Professor*

* Because of its great range, its continuous action, its instantaneous effect and its ease of aiming which was due to the fact that it was visible, the ray from one of those boxes had more power than a hundred machine-guns. Its effect was to paralyze the nerves.—Ed.

*Both Don Hargreaves and Professor Winterton can never leave Mars, because the atmosphere of the planet, which contains krypton rather than nitrogen, is its most important constituent, in addition to oxygen. This has conditioned their bloodstream so that returning to Earth would be fatal. A condition would be caused that would produce bubbles in the bloodstream.

This is similar to the "bends" which divers get if they come up out of the water too quickly. Nitrogen is dissolved into the blood under pressure, and when the pressure is removed suddenly it is given up again, forming bubbles. The krypton on Mars behaves in the same way. Krypton is a gaseous element (also found in Earth's atmosphere, in a minute proportion of one part in twenty million) and appears to be very similar to argon, helium, etc. Its molecules are made up of single atoms, and its atomic weight is 82.9. Krypton samples have been liquefied and even solidified. The solid melted at — 169° C. and the liquid boiled at — 152° C. Its critical temperature (i.e., the highest temperature at which it can be liquefied) is — 62.5° C.—Ed.

came nervously, wondering what had happened to cause him to be summoned into the presence of the second highest in all Mars.

"I see," he said, when everything was explained to him. "Brutes with the intelligence of men. A nasty combination. And they go everywhere through the planet, using caverns that men cannot climb through. You say they are likely to appear anywhere at any moment, in great numbers. Yes, that certainly sounds bad."

"What can be done about it?" Don asked.

"It seems to be more a question of war than of hunting dangerous beasts," the Professor murmured. "The first thing is to find out all we possibly can about them: where their hiding-places are, their headquarters if they have any, their food supplies, their mates and their young. Destroy the tunnels they come through, destroy their food supplies if we can. Destroy their females and their young. Leave poisoned and infected food for them to find. But most of all destroy their sources of food supply. That is the only method with any real hope of success. One cannot have humanitarian scruples in dealing with creatures like that."

"Waugh!" said a harsh voice behind them.

Don turned his head. Four ape-men were standing behind them, in the door way that led to Wimpolo's secret exit. Their bodies were covered with long blue and red hair, and their hands and feet had long curved claws. The Princess' light, flashed momentarily into the traffic tunnel, had shown the way into her private apartments to beast-men lurking there. The safety measures provided for her by her anxious father had proved to be her greatest danger. So busy had the two Earthlings and the Martian Princess been discussing the war that none of them had heard the warning hiss of the snake.

Many things happened in a few moments.

The snake rushed to attack. The Princess' zekolo came from nowhere, shot its arms out of its oystershell.* But a black deathray box, swung by an ape-creature, made both the animals stop. They knew the deadly powers of the ray as well as humans did.

Don would have put up a fight, ray-box, or no raybox, but he was taken by surprise. He knew that his speed and the agility of his Earth-light body made him a dangerous fighter among the gigantic, slow Martians. Admittedly, four sub-men made a very tough proposition indeed, but all the same he would have tackled them, if he had had a chance to do so. As it was, however, the surprise caught him sitting down, and before he could get to his feet a sweep of an ape's paw knocked him flying through the air.

Wimpolo was seized by the hair by one ape and by an ankle by another. Struggling ineffectually, she was carried through the door almost before Don was on his feet again. The door slammed, and they heard heavy furniture being pushed up against it.

Professor Winterton leaped for the television controls. He sent out an alarm. In a few moments the room was full of Wimpolo's private guards.

"What is the matter? Where is Her Magnificence?"

* The zekolo has many octopuslike arms within an oysterlike shell. While at rest only the tips of its many lobsterlike pincers are visible. But in action they can be thrust out to great length. Its duty was to guard its mistress as a faithful dog would do. In the underground world of Mars with its many dangerous animals such protection was very necessary, and as a fighting animal the zekolo had no equal either on Earth or in Mars. Those clashing pincers would have cut a tiger into pieces in a few seconds, while the tiger's claws scratched harmlessly on tough shell and leathery arms.—Ed.

They broke open the door into Wimpolo's private room, and Don showed them the secret exit. The traffic sphere was gone. Only a blank, empty hole faced them.

CHAPTER II

To Selketh

DON, the Professor, several Martians and the animals raced along the traffic tunnel. The gradient was steep and the tile-covered floor slippery. They reached the general system of traffic tunnels with its many forks. An alarm had been given, and many spheres were hunting for the Princess.

Before long word came that the Princess' sphere had been found. It had been abandoned in the tunnels close to a jagged hole in a wall. Looking into the hole they saw a rough, rocky cavern with floor so steep and so littered with loose stones that it would have been almost impossible for a man of Mars to climb down it. The ape-men and the little Earthlings, however, had little difficulty. To the snake and the zekolo, of course, the jagged, slipping rocks were their natural home.

Don and Winterton threw over their shoulders luminous capes that filled the cave with blue light. Switches on their breasts turned the light on and off. On their heads were searchlights. Cautiously they picked their way over loose stones.

After the polished perfection of the tiled traffic tunnels it seemed strange to be in the rugged grandeur of these enormous natural holes. They performed climbing feats that looked absolutely impossible, and that would have been impossible on Earth.

"Are you sure we are going the right way?" Winterton panted. "Remember that the ape-men were carrying Princess Wimpolo. She is a terrific weight. Could even they, with their enormous strength, have carried a Martian girl down these treacherous rocks?"

"They used a rope," Don answered. "See the marks of the rope in the dust and slime. And here is the imprint of the Princess' shoe in the moss of a crevice."

They were certainly on the right trail, but it was slow going. A loose stone rattled past them. Don looked up, lifting his deathray box to his shoulder, ready to reply to any attack from above. But it was not necessary. A group of Wimpolo's guards were following them, using snakes as natural ropes.

Don blinked. He felt that he would never accustom himself to the innumerable uses the Martians made of their uncanny pets. He spoke the word of command to the snake and the zekolo.

At once Winterton and he were picked up and carried forward on their journey with great speed. They sat on the back of the zekolo, the natural configurations of its shell making a good seat, and one octopus-like arm coiled round them for added security. Like a spider the zekolo raced down the rocks, the snake squirming sinuously after.

The crack they were following opened into the roof of a large cavern. Three hundred feet below was the floor. There was no way of climbing down, even for the animals.

"We shall have to wait until long ropes can be brought," Don thought.

The zekolo, however, did not hesitate. Still holding them on its back it hung by two of its arms into the vast hole. Don was amazed to see the arms stretch like elastic rubber. Another pincer let go. The zekolo hung by one arm only. That last arm stretched beyond belief, until the creature hung like a spider on

the end of its thread. The last arm let go, and the zekolo landed safely on its other arms on the cavern floor.

Looking up, Don saw that the last arm still gripped the rocks above. It had remained behind. It had not broken, but the zekolo had snapped it off and thrown it away so that the recoil would not injure the two men who sat in its back. An arm more or less was nothing to the zekolo. It would soon grow another.

THE snake above was unable to follow them. But soon Wimpolo's guards, on their own snakes, reached it. Then Don saw another trick. Several snakes, twining their bodies together, formed a long living rope down which the rest of the snakes and guards traveled in a few seconds.

They were in a large natural cavern that seemed to be quite uninhabited. Not waiting for the snakes and guards, the zekolo raced spider-fashion over the rough floor. Don guessed that it was trailing its mistress by its sense of smell, or by whatever strange other sense took the place of smell with these creatures. Don let it go on its own way, trusting to the instincts of the beast, which knew their purpose quite well, even though it was unable to speak to them.

There were no beast-men to be seen, but it was possible that they might be lurking in the shadows around. A deathray might strike from some hidden point at any moment. The two men put out their lights and relied on the natural lights that glowed from between the stalked eyes of the zekolo, on the heads of snakes and on the life, plant and animal of the cavern.

Presently they passed a group of apemen gathered together on the cavern floor, but the zekolo took no notice, going straight on.

At last they emerged through a small opening into a much vaster, well lighted cavern. They saw, on a wide plain that stretched before them, a Martian city, beautifully designed and colored, an arm of a Martian ocean with ships lying at anchor, and cultivated fields and pastures. But signs of destruction and ruin were everywhere.

It was Selketh.

"Stop," Don whispered. "We must spy out the land before we go further."

BEHIND them they heard cries. Snakes hissed in wrath. Wimpolo's guards had come upon the group of apemen resting in the cavern. The zekolo tried to go back and join in the fight, but Don held it with a low word of command. Their business was to find the Princess, not to look for side-battles.

Two ape-men came running to get help for their companions. Don's ray knocked them both over. A score of death rays, blazing together, had wiped out the rest of the surprised group.

The guards had lost no time. Don saw that each man was being carried in a coil of one of the snakes, in which way they could travel almost as fast as the zekolo.

The scaly, sliding cavalry reached the opening where Don and Winterton waited. Wimpolo's snake, which knew Don, came up to him and rubbed its scaly snout against his leg.

"Where is the Princess?" the leader asked at once.

"This zekolo," Don said, "the Princess' personal pet and very attached to her, trailed her as far as this. That is all we know."

"Our snakes followed your zekolo," said the leader of the guards. "But if your animal is the Princess' pet he should be able to follow her without difficulty. The Princess is there."

He turned to his men.

"Soldiers of Usulor," he said, quietly,

"Princess Wimpolo is down there, in front of us." He pointed with his left arm at the captured city. "You all know what that means. All lights out. Dismount."

At the correct word of command the natural searchlights of the snakes winked out. The coils unwound, letting the guards down. In the darkness came the words of the leader.

"Form into line. Down on your faces. On the word, 'Now!' you will all aim your deathrays at the spot I shall aim at. Now!"

A score of deathrays stabbed as one. Across the plain the unified beam of destruction glared, soundlessly. Wherever a group of ape-men was gathered they sank down soundlessly.

"Now, singly. Pick off solitary individuals."

The surprise attack had caused great slaughter. Now the shrill note of a siren sounded from far off. Don thought it came from a grey shape in the docks. It was a curious shape, more suggestive of a submarine than a ship. Don knew that there were submarines on Mars, but he had not seen one until now. And now the deathrays of the guards seemed suddenly to have become powerless. The pale beams could no longer be seen: no longer did ape-men sink to the ground under the attack.

"It must be a screen," the leader declared. "Our rays are stopped by some sort of obstruction. We must break it. Mount."

Though the guards knew what a forlorn hope it was, they mounted with no hesitation and no sign of fear. They were Wimpolo's men, hand-picked, and their lives belonged to her.

DON watched the city. Ape-men stood as though on guard outside many of the houses. He reasoned that the inhabitants must be imprisoned in those houses, such of them as still lived. It seemed to him that the ape-men showed some sort of discipline, as though all were working according to some pre-arranged plan. He felt sure that Martian humans were in charge of them, using them for their own ends, probably for some deep-laid scheme of planetary conquest.

He could see several men moving about, not ape-men but normal Martians. The brutes left them unmolested, seemed rather to be afraid of them. And the capture of Princess Wimpolo seemed to have been a deliberate, planned affair.

"Professor," Don muttered, "this is not an outbreak of wild beasts or savages that we are up against. It is war, an organized revolution."

"I had arrived at the same conclusion," Winterton answered. "It confirms my opinion that as long as Mars has kings who are absolute rulers in their own areas, there will always be war, even though one king is overlord of them all."

"While the attention of the enemy is engaged on this side of the city," Don said, "we will work our way around to the other side. We might be able to get into the city unobserved."

"Do you think that will do any good?" the Professor asked. "My idea is to get away from here as quickly as possible and take to King Usulor the news of our discoveries. This is a job for a big army."

"And leave Wimpolo in the hands of the enemy?" Don asked.

"What can we hope to do? At least we have the satisfaction of knowing that the Princess is in the hands of human beings, and not depraved brutes."

But he gave the orders to the animals, and the two moved off rapidly to the left of the fight, as Don had wanted.

Meanwhile the little squad of snake-cavalry was charging side by side, in one line. The inexplicably useless death-rays were still aimed ahead from each man's right hand, while in the left each carried a broad, curved sword. But no pale beams shone from the boxes.

Then, suddenly, from the grey shape that seemed to be a submarine in the harbor there shone another ray like a slender thread of red fire. It shone, not at the heroic squad of snake-mounted cavalry but at the roof of the cavern high above. At the touch of the beam clouds of what seemed to be smoke poured out. It looked as though the rocks themselves were burning.* An enormous mass of rock fell from the cavern roof. It must have weighed millions of tons.

The speed of the charging snakes carried most of them beyond the main mass of falling stone, but odd rocks, flying out of the main fall, struck and crippled half the snakes and men. The line was broken, a disordered confusion.

A great crowd of ape-men, waving metal clubs and hurling huge stones, rushed at the disorganized line. Each guard found himself facing, at the same time, the blows of four or five beasts.

The ape-men seemed to flow over men and snakes like the sea over the shore, submerging them, hiding them from view. Wimpolo's heroic guards had charged to death.

* Although this thread-beam of Bommelsmeth's appeared to set stones, metals and all solid substances on fire, this was not actually its effect. It was not until long afterward, when Usulor's scientists had an opportunity to examine a ray producer that the means of its operation was discovered. No heat and no burning was involved. Where it touched, the ray neutralized the force of cohesion that holds the atoms of solid matter together. Those atoms then flowed apart in the form of gas. Passing out of the influence of the ray, they solidified again as fine dust, producing the effect of clouds of smoke. Thus the thread-ray could cut its way like a knife through any armaments whatever.—Ed.

CHAPTER III

In the Ruined City

"IT looks bad, Hargreaves," said Winterton.

The two were standing in the dark looking down upon ruined Selketh. The fall of rock had blocked the hole out of which they had come. If any more guards were following the first twenty they would be unable to get through the hole until they had first removed many hundreds of tons of rock.

"At least Wimpolo is in the hands of human beings, and not animals," Don said.

"Are you convinced now that it is hopeless to attempt a rescue?" Winterton asked. "Come back with me and let us report to King Usulor."

"Look," said Don, pointing. "See those huge dark shapes in the water. What are they?"

"Ships."

"No. They are submarines. There are many of them. The people of the city are being marched aboard them."

"You are right, Hargreaves. But what of it?"

"According to my guess, the Princess will be on board that biggest one of all, the one the burning ray came from. But where are they going? Where are they taking her? I will not go back until I have found out."

"But my dear boy, it is hopeless."

"The information we have got so far must certainly be conveyed to Usulor," Don agreed. "Very well then. We will part. You return to Usulor and safety as quickly as you can. Let the snake carry you. I will remain here and see what I can do to help Princess Wimpolo. Will that suit you?"

"I don't like to leave you like this, my boy," said the Professor.

"You must. When Usulor gets here

with his army all the apes will be gone. There will be no trace of the people of the city, nor of the Princess. They will have been carried in those submarines nobody knows where. I have to find out where. That will be dangerous, and there will be fighting. That is a young man's job. Shall we say, 'Good-bye?' "

"Good-bye, then."

They shook hands. Professor Winterton's grey-haired figure disappeared into the darkness, carried in one of the coils of the snake.

Don looked at his deathray box. It was quite out of action, making no response to his turning of handles and pressing of knobs. Perhaps it might be repaired later. He slung it over his back by the strap and drew his broad, curved sword.

At the word of command the zekolo carried him toward the city.

A SHRILL whistle was sounding, and all the ape-men seemed to be gathering in an open space where half a dozen Martians were giving them orders. Don reached the city unnoticed, and was soon hurrying through the streets. There were many bodies lying on sidewalk and roadway, testifying to the murderous violence of the ape-men's assault.

He heard voices, and hid in a doorway. A crowd of inhabitants of the city was being driven through the streets by ape-men with metal clubs and ray boxes. The wrists of the captives were chained together.

When they had passed, Don made the zekolo carry him to the roof of one of the buildings to see where they were going. The zekolo climbed the wall without difficulty. Don looked across the city to see the captives being marched into the hatchway of one of the submarines in the harbor.

He heard voices calling. Several Martian girls were looking out of a window across the street and were calling to him for help.

In a few seconds the zekolo was down from the roof and across the street. Elongating two of its arms, it reached up to the window, gripped the sill with its pincers, then rapidly hauled up itself and Don.

Don found himself looking into a room where were many Martians of both sexes and all ages. All had their wrists chained together.

"What happened?" Don asked, as he and the zekolo came through the window.

"It was the big submarine," a Martian told him. "It bobbed up in the harbor, and from it came a new sort of ray, a threadlike burning ray that instantly destroyed all the defenses and important points of the city. Then came the rush of the ape-men out of all the unexplored caverns round us. When we tried to use our deathrays every one of them had mysteriously gone out of action. We were helpless.

"The apes carried deathrays with which they killed our snakes and zekolos. Everybody who tried to resist was killed. Those of us who gave in were chained and locked up, as we are. We have seen many batches like ourselves being marched away, and we are waiting for our turn."

"Oh, where are they taking us?" a Martian girl asked.

"There are batches of people being marched aboard the submarine," Don said.

"Submarine?" the big Martian repeated. "That might be taking us anywhere in Mars. But why do they use submarines? It must be some very secret place that we are going to, perhaps to somewhere that cannot be reached by any other means."

"Have you seen anything of Princess Wimpolo?" Don asked.

They looked blank, but one girl remembered seeing a girl wearing royal insignia being marched through the street by a group of apes who were making a lot of noise as though very pleased with themselves. The Martian girl had not thought it possible at the time that it could really be the Princess.

"Then I am on the right trail. Is there any way that I can get to this submarine and stow away on board?"

The Martians looked at one another.

"You haven't a chance, Earthling. All ways to the docks and the docks themselves will be swarming with ape-men. Best not to throw your life away trying it. There is no possibility of getting near that submarine, unless you swim."

"That's an idea," Don said. "And, say, I have a plan to help you to escape, if you like to try it."

"I'll try anything," the big Martian said. "What's your idea?"

"My zekolo will take each of you in turn and lift you onto the roof. This block is huge. You can hide yourselves anywhere in it. The apes will be too busy getting away before King Usulor's army gets here to have much time to hunt for you."

The Martian looked out of the window.

"We should be seen getting out," he said.

Many batches of ape-men were coming down the street. A squad of them turned into the house where Don watched.

"They've come for us," the Martian said.

THE steps of the ape-men could be heard padding through the house, grunts, half-animal cries and primitive speech.

"All stand well away from the door," Don directed. "Zeko! Climb!"

The zekolo knew what was wanted. It elongated two of its arms like long stilts and stood over the doorway, one arm on each side. Don sat on its back, over the door.

They had not long to wait. Soon the door was unlocked. Ten ape-men with metal clubs in their hands lurched in on short, bowed legs.

Don dropped to the floor behind them, sword in hand. To his amazement the zekolo gripped his belt in one of its pincers and placed him behind it, out of the way. The zekolo was going into action, and it had ten enemies to fight at once. It had many arms and pincers, but only one pair of eyes. It could not watch what all of its arms were doing. For some minutes it would be dangerous to be anywhere within range of those pincers.

Don had seen the zekolo fight several times before, but never in such a confined space against so many opponents at once. It simply lay on the floor and shot out all its arms at once, pincers clashing.

The three ape-men in the lead it seized by the neck and simply pinched off their heads as scissors might cut off the heads of men of paper. The rest of the pincers clashed more or less at random, pinching at anything in the way, arms, legs, bodies, the wall, the door, furniture.

Metal clubs crashed on tough shell and rubbery arms, apparently doing no damage. The zekolo's eyes turned. The blue-haired arms of the ape-men tried to cover their throats, and were promptly cut off. A swinging club might knock out of the way the first reaching pincer, but not the second and third.

In less than a minute the fight was over. Two ape-men tried to run away.

They swung their clubs at Don, who stood in their path, but he jumped higher than their heads, his sword stabbing out at their throats.

"Onto the roof," Don said, "before more of these things come."

He went to the window, but the zekolo knew a better way. Reaching up, it knocked a hole in the ceiling. Soon it had lifted all the prisoners onto the roof.

"We should be able to escape now," the big Martian said. "If only our bracelets were off we would be quite happy."

"I am afraid I can't manage that," Don said.

"But your zekolo can."

And Don discovered, to his surprise, that the tough pincers of the zekolo could even cut through the metal chains, with some effort. Soon the prisoners had their arms free.

The party went down into another house in the same block, and, watching their chance, slipped across the street into a house opposite. The city was nearly empty of ape-men by now, and those left were hurrying from house to house, setting them on fire.

"I must be off to find the Princess," Don said. "I have lost too much time."

In a moment he returned.

"I forgot to ask you. Can zekolos swim?"

"Like fish," he was told.

"And what is the word of command to tell a zekolo to take to the water?"

"Hoddors."

"Thanks."

He went away again.

CHAPTER IV

Stowaways

HE would have to get wet. The deathray would get a soaking, too. The metal cover of the box looked watertight, and he decided to take it with him, useless though it was at the moment.

The sea was as smooth as a mirror. He found a motorboat tied at a deserted quay, and the silent atomic engine carried him swiftly out into the darkness of the deep water.

Some of the ships in the docks were moving, gliding out to sea. He wondered if Wimpolo was on board any of them. There was no way of knowing. Most of the civilians from the city who lived had been taken aboard the submarines; that much was certain. He could only take a chance that Wimpolo was on the biggest of them.

Don was no sailor. A great liner surged past, a long way off, and the wake, which he had not thought about, swamped his boat. He found himself swimming.

"Hoddors," he said, needlessly, for the zekolo had to swim or drown.

As the Martians had said, the creature was quite at home in the water. It swam with graceful, undulating motions of its many arms. The water was warm. Don was lifted out of the water by one of the zekolo's arms and placed on its back.

They began a dangerous swim among the shipping. Cranes and trucks were busy loading the ships. Loot from the city, he supposed. Many boats were sinking at their moorings, and he realized that little of any value and hardly anybody alive would be left by the time the ape-men and their mysterious masters had left the city.

Brute beasts were in possession here, and the uniformed men in charge seemed unable to do much to restrain them, even if they had wished to.

The submarine was of enormous size. It had a superstructure that carried the curious mechanism of the

weapons. The marching in of prisoners had stopped, but metal cases and machinery were still being slung into a hold in the after end of the vessel.

It would not be easy to get on board unseen. Blocks of metal lifted the cases, apparently by magnetic attraction, and lowered them into the hold. He judged that the best chance to make his attempt would be just as the crane swung back for the next load.

The zekolo and he scrambled out of the water, looked down into the sub's interior. Captive dock hands and ape-men were wheeling metal boxes away to stow them. A man in uniform was directing them. All had their backs to Don.

Don whispered, and jumped. He landed on the floor, and was soon hidden among the cases. The zekolo flowed after him and, difficult as it seemed at first, managed also to secrete itself among the boxes. Because he was so small to them, Don could slip about amongst the Martians without being seen, and they took little notice of zekolos. The sharp ears of the ape-men had heard Don's light figure land in the hold, and one of them turned with a growl. At once a tiny thread of red fire shot from an instrument in the hands of the man in uniform. It touched the ape's side. With a howl the creature turned back to its work.

"Hurry! Hurry!" grated the man in uniform. "Must I scorch all the flesh off your bones before you will hasten yourselves? Usulor's air fleet is coming, with massed deathrays, power beams and fighting flies. Our blanketing ray is effective against deathdays only up to five miles, and Usulor's planes can strike from a lot further off than that. Hurry!"

SOON Don and the zekolo were hidden among the cases as the piles grew and grew. For all their haste, the apes and their human helpers seemed to take hours to load the sub. It became darker and darker as the hold filled up, and the voices of men and apes further and further away. Presently he heard the clanging of doors and hatchways, and the screwing home of bolts. A little later he felt the throb of mighty engines. The sub was under way. Presently he felt the up and down motion of waves, and then he felt the sub submerging under him.

He put on the headlight that was attached to his head. The hold he was in was vast, but of course too full of cases to be comfortable. It was possible to wriggle among them, but the huge shell of the zekolo made it difficult for the creature to get about much.

From the cases he saw that the city had been thoroughly stripped of everything of value. There were works of art, Martian jewelry, expensive machinery, arms, expensive clothing, rare chemicals. There were even cases full of the extremely highly prized fruits that the Martians still, with enormous difficulty, cultivate in deep valleys on the surface of Mars, in the light of the sun that so few of their race ever see.

He was glad of the fruits. When the zekolo had broken open the cases they made food and drink for both of them. Fruit to a value corresponding to many thousands of dollars they ate for one meal, but after three days on this expensive but monotonous diet Don would have traded a million dollars worth of the fruits for a loaf of bread, a pound of cheese and a pint of beer.

He could hear voices in other parts of the ship. Some were the grunts and inarticulate words of the ape-men and the orders barked at them by the Martians in charge of them. From one direction came sobs, groans and

remarks that told that some of the people from the sacked city of Selketh were imprisoned in there.

Only a metal partition separated him from them. He managed to get to the partition and tapped on it, but they took no notice. He called, but got no answer. He was afraid to shout too loudly, lest the voice of an Earthling, which is a shrill, piping sound to a deep-voiced Martian, attract the attention of the men in charge of the sub.

The partition was of plates held together with rivets. He succeeded in getting the zekolo to understand that he wanted the rivet-heads cut off. The creature found it easier to pull the rivets out altogether. After a long struggle Don succeeded in clearing away the packing-cases from near the partly freed metal plate and in wedging it partly open. He wriggled through.

He was among a mixed crowd of gigantic Martians who gaped at him in amazement.

"How did you get here, little Earthling?"

"Are you a prisoner, too?"

"I am looking for Princess Wimpolo. Have any of you seen her?" he asked.

Life came back into the blank faces of the dejected prisoners.

"Has the Princess been captured too?"

"How terrible!"

"Serves her right!"

Many were the opinions expressed about the news, but nobody had seen Wimpolo. Most of them said that she had been in her own palace when their city was captured, and that it was impossible for her to get into such trouble. She was too well guarded.

"Royalty takes care of their own, no matter what happens to people like us," the prisoners said.

"Nevertheless, this catastrophe has struck rich as well as poor, and even the highest in all Mars," Don said. "Princess Wimpolo is a prisoner like you in the hands of the ape-men, or of the people, whoever they are, who are in charge of them."

But Wimpolo certainly was not here. Don did not know whether he was relieved that she was not in this hell-hole where so many were confined in a small space, or disappointed at his lack of success in tracing her, up to the present.

"WHERE are we going?"

That was the question that all the prisoners asked him, but Don could give no answer. They seemed to think that he had been all over the sub, and knew all the plans of its masters. He had difficulty in explaining to them that he knew no more than they did. Most of the Martians thought the sub had gone very deep, some said over a mile. They pointed to the high air-pressure as proof of this. Of course, pressures in Mars are much less than those on Earth.

He asked them if they had found out anything.

"Such as what?" they asked.

"Haven't you heard the ape-men talking? Or the uniformed men in charge of them? Haven't you any idea of where they come from?"

"It's another lesser king in revolt against Usulor," they said. "Like Sommalu. The apes do his fighting for him."

"A plague on all kings, I say," said another.

Don felt he was not getting anywhere. These people were not likely to help him in any desperate break for freedom. They were spiritless.

"Are you all cowards?" he asked. "Will nobody—"

One of the giant Martians clapped a hand over his mouth. On the other side of the partition the zekolo stirred

uneasily, thinking that he was being attacked. One of its pincers slid through the hole in the partition, ready to help him.

Another Martian wrote on a piece of paper:

"Be careful. Any word spoken in here is liable to be overheard. At least a hundred of us are with you, ready to fight to the last drop of our blood. Only show us the way."

Don wrote in answer: "Then one of you come forward, out of range of the listener."

A giant of giants came forward, an immense Martian who stood nearly a head taller than the others and whose enormous chest and massive bowed legs spoke of tremendous strength.

"I am your man," he wrote, forming the Martian words so clumsily that Don had difficulty in reading them. "Me, Vans Holors. I live by fighting. I'm wrestling champion of my country, rightful champion of all Mars."

Don looked at him. Van Holors did not look exceptionally intelligent, but he appeared to be good-natured enough. His strength was obviously terrific, and Don felt certain that his courage equalled his strength.

"Vans is your man," others were writing. "Trust Vans."

The zekolo pulled out more rivets. Presently it was possible for the Martian wrestler to push his great bulk through into the storage hold. Making a way through the tightly packed cargo was more difficult, but zekolo and Martian, working together, accomplished this also.

"What have you got to fight with?" Vans asked. "A little sword, a raybox and a zekolo. Not much between a hundred men. Is your nerve-stopping ray any good?"

He took the box from Don and fiddled with it.

"You've got it wet," he observed. "Power supply exhausted too. Same as ours went in Selketh when the monkey-men came."

"They've got a blanketing ray," Don said. "I heard them speak of it. It short-circuits every nerve-stopping deathray within miles."

"Um," said Vans. "Then the monkey-men get busy with those iron clubs of theirs. If I could recharge your box it would be all right. Wonder what's in all these cases? Some of them hold recharging apparatus, I'll bet. Zeko! Break! Open!"

The creature looked at Don, wondering if it was all right to obey the orders of the stranger.

"Break! Open!" Don repeated.

THE throbbing of the engines of the sub died down as the Martian and the zekolo opened cases. The submarine was gliding into some port. Hurriedly they worked. Many cases they opened before they found what they wanted.

One case contained dozens of ray boxes, but to their great disappointment they were not charged. At last they found charging apparatus, nearly run down. Van was working now with sweat on his brow and a gleam of triumph in his eye.

"A few more hours to get all these boxes charged, and then when the monkeys and the men in charge of them come to take us, what a shock they'll get!"

From the noises outside it seemed that the sub had stopped, and that the hold was being opened. Time was short. There were hootings and whistles and the clanging of metal. Light from outside shone down between the cases.

Van growled and put out the light he had been working by. They must not be seen too soon. Only a dozen or so

of the deathray boxes had been charged. Don and Vans made their way carefully back to the partition that separated them from the prisoners of Selketh.

Had the prisoners already been taken out? Don wondered. For some time there had not been a sound from beyond the partition. One glance through the partition showed the reason. The prisoners all lay in crumpled heaps on the floor.

"The fiends have killed them all," Don muttered.

Vans went swiftly through.

"They are not dead," he said. "Only unconscious. Nerve-stopping deathrays at half-strength have been played on them. Just a precaution in case they tried to get fresh when the monkeys came to take them out of here. Makes things awkward, Earthling."

"We'll have to fight our way out alone," Don said.

"That's the talk," said Vans, admiringly. "If you sat on my head and I put my hat on nobody would see you, but you're the goods."

Some careful work and straining helped the zekolo through the partition. Then Don, Martian and zekolo hid themselves among the unconscious figures.

The metal covers of the hold were opened. Two ape-men dropped down into the hold. The stalked eyes of a zekolo looked down, and its arms reached down for the unconscious bodies. Apparently the beast was used as a living crane. It either saw or smelled its fellow, and squawked a hoarse challenge to it to fight.

"Now or never!" Don thought. He swung his ray.

The two ape-men in the hold took the ray in the head. Their eyes closed as though they had gone to sleep, and they crumpled up. Meanwhile Vans' ray had caught the enemy zekolo, but the creature, sensing danger with the instinctive speed of an animal, jerked backward. They heard it fall in the water.

Don sprang to the gunwale. He had a confused impression of docks with tall buildings, machinery and many Martians, ape-men and zekolos. His swinging ray knocked men over everywhere. Many fell into the water or from the tops of high buildings.

The zekolo reared itself beside him, and two of its arms lifted out Vans Holors, who was too heavy to get out by himself without a ladder.

Don looked round.

On the bridge of the submarine stood Princess Wimpolo. Beside her was a lean, sardonic Martian dressed in royal robes with insignia that none but Usulor was entitled to wear in Mars.

He might have swung his deathray and brought down this royal Martian, but Wimpolo was so close to him that his ray would probably have struck her also.

For a moment his eyes met those of the Princess in recognition. He waved a hand, shouted, "I'll be back!" then dived into the water of the dock after Vans and the zekolo, just as a hundred deathrays stabbed out at him.

CHAPTER V

Bommelsmeth

PRINCESS WIMPOLO, first lady in Mars, was no coward. But she had been through a horrible experience. For a gently nurtured lady to be suddenly seized in her private rooms by a pack of foul-smelling, brutal beast-men was no joke. For a time it had seemed to her that she was delivered to a fate worse than death. She fought, useless as it was, until a clout on the side of the head from an open hairy hand knocked her dizzy.

"Quiet!" growled the apes. They were able to talk in a fragmentary, indistinct fashion.

She was bundled into her own waiting sphere, and apish hands fumbled clumsily at the controls, which were very simple. The sphere raced along the one-way traffic tunnels in a dangerous fashion, ignoring signals at the forks. It seemed that the brutes did not understand the method of traffic control at all.

Wimpolo hoped for a collision, even one that would kill her and her foul captors together, but luck was with the apes. After some miles the sphere stopped, and she was hauled into the opening of a natural cave. A Martian in an unfamiliar uniform stood there, and she called to him for help.

"It's no use struggling, Princess Wimpolo," this Martian said. "Be sensible, and you will not be hurt."

She understood then that human beings had sent these apes to capture her. It was another revolt against her father. She was lowered with ropes down the steep cavern, then carried through the larger cavern until they reached the city of Selketh. At Selketh she saw the looting of the city, and the driving of the people aboard the submarines. She was taken to what she saw were staterooms on board the largest of the subs. A tall, lean Martian awaited her there, smiling sardonically. He was wearing the insignia of overlord of Mars.

The lean Martian stood up.

"Power to Princess Wimpolo," he said with stiff courtesy.

She faced him with a bitter sneer on her lips.

"Rebel dog," she said.

He frowned.

"Not many speak to me like that and live, Princess," he said. "I will overlook it this once, but be careful. Do you know who I am?"

"Your forged epaulets and badges would tell me that," she said. "You are in revolt against my father, and you seem to think that you have already won."

"So you mean to be awkward, eh?" he said. "A pity. I had planned a future for you that would not have been so very unpleasant, provided you had been reasonable and accepted the inevitable. My name is Bommelsmeth. Already I rule more of Mars than your father does. Am I not entitled to the rank of overlord, more so than he?"

"You won it by treachery and the massacre of helpless people," she said. "You rule an empty desert."

"WRONG, Princess, quite wrong," he answered, smiling in sardonic triumph. "My subjects are more numerous than those of your father. For my ape-men must be counted. They are human, and very useful they are, too. Your father's best troops are a long way from being such fanatical fighters as my apes. And they have given ample proof of their ability to travel through unexplored caverns and attack in overwhelming force at undefended spots. Why, it is really my will that decides, even in Usulor's own country. I might have your whole country in chaos, but I have been very patient and restrained. I warn you, my patience will not last much longer. I shall demand my rights, and all who oppose me will be crushed, mercilessly.

"Have I not shown my power? Have I not plucked out of the middle of her father's palace the best-guarded lady in Mars? My spies brought me complete plans of your secret exit long ago. In the same way I have learned all other secrets of your father's, many of which have long been forgotten by your father and his generals themselves."

"How could you learn of my tunnel?"

she asked, unbelievingly. "All my palace servants are beyond suspicion."

"You forgot the borers of the tunnel, the planners and designers. I have my agents in the highest, most trusted positions." He grinned in triumph.

"All the same, King Bommelsmeth, as you call yourself, my father will break you as he broke Sommalu."

"Oh, no! Sommalu was a hasty fool. All the same, he showed how shaky your father's rule had become. It only needed a man with a little more intelligence than Sommalu to succeed where he so nearly succeeded. I work with science. Your father has neglected science. That is his big mistake. Nothing in life stands still, Princess. Either we go forward or we go back. Obstructions of progress must be removed. And if many have to suffer and die, and many more be partly bereft of reason, what does it matter in the end? What is a generation in the life of a race? We must have progress."

"What you call progress," she snapped.

For a second his eyes blazed with anger, then he controlled himself.

"Why should I lose my temper with you? You are absolutely in my power. I can break you, bend you to my will at any time I choose. Think, Princess. Where do my ape-men come from? I will tell you. They are the inhabitants of the cities I have captured.

"I have discovered the force that produces evolution. A radiation it is that irritates the cells that compose living bodies, driving them to devise ever more and more complicated chemical processes. I can reverse the development. My evolution-reversing field makes the cells that compose the bodies of men forget how to behave as the cells of men. They revert to the ways of our ancestors, countless ages ago. Skin cells forget how to produce the smooth skin of a man and remember only how to make the hairy skin of an ape. Legs become short and bowed, arms long, eyebrows huge and beetling. Brains become smaller.

"I herd my captives into camps, and round the camps I throw evolution-reversing fields. In a few days they change into hairy ape-men such as you have seen, their bodies powerful, their intelligences dim, their memories of their human existence like vague, confused dreams of the distant past. They respond only to my orders and the orders of my men. At a certain stage I stop the process, and another company of most capable soldiers is ready to follow my orders."

"You must be a fiend from hell," she gasped.

HIS eyes glowed with a queer light.

"Your skin," he said, "is smooth and clear. Your face is beautiful, your hair a delight. I am ready to give you the highest place for a woman in Mars, by my side. But one more remark like that and that skin will soon be covered with coarse hair, that delicate face will become the face of an ape, that—"

Her shuddering gasp stopped him. He grinned.

"What must I do to escape that?" she asked.

"Under the ocean bed," he said, "where your father would never find it though he searched for a thousand years, I have my headquarters. There I work and plan beyond all possible reach of your father's prying television.

"But I can relay television back, if I choose. From there you will televise your father. Tell him that you are my prisoner, and that he must submit to me. All his armies must deposit their battlespheres, warplanes and all other arms in a spot I shall name, and you will be queen of all Mars. Otherwise

I fear that your body will lose its delicate shape, your skin its texture.

"And I will build huge evolution-reversing force machines in the roofs of caverns over your cities, where they will be unseen, so that the people of your father's cities will turn into apes even as they walk about."

A cold chill settled on her heart.

"Can you reverse the process? Can you change your apes back into men?"

"Unfortunately, no. Evolution is like a tree with many branches. The human race is like a collection of caterpillars on one of the leaves of the tree. I drive some of those caterpillars back toward the trunk. If I set them climbing again very few of them will get back to the same leaf. I tried it, several times, but I got only a lot of queer freaks, very few of them capable of life.

"But do not let my apes worry you. I cannot make them into men again, but I can get rid of them. Once I am master of Mars I shall evacuate all of my men and everything of value from my cavern under the sea. My apes will be left there. My submarine will be the last to go out, and then my dissolving ray will cut away the rocks until the sea rushes in, and the apes trouble me no more."

They stared into each other's eyes, he grinning, she horror-struck.

At last he rose.

"I have given you much to think about. Now I will leave you to think it over. The journey to my sub-oceanic headquarters will occupy several days, and the negotiating of the huge locks requires care. You will have several days uninterrupted privacy in which to ponder on what I have put before you.

"In the next cabin you will see twelve cages and aquaria. Each of them holds what was once a man. They are former soldiers of mine who have annoyed me. Into the roof of the cabin is built a small evolution-reversing field machine. Some of them have been there longer than others, and you can trace twelve stages in the long journey from human form back to the primeval slime. Even in the little while that we shall be on our journey you will be able to see a change in each of them. You should find it most interesting and instructive."

He saluted.

"Power to Princess Wimpolo," he said, sneeringly, and went out.

THE cages were as he had said. An anthropoid ape glared at her from the first, growling and shaking the cage in its efforts to get out. In the next cage was a more primitive ape-man, squatting sullenly on its haunches and looking terrified. In the next a smaller monkey with a long tail climbed on branches. Then came monkeys of more and more primitive form, then creatures that were half rodents, half reptiles, then scaly swimming creatures in square glass vessels, progressively smaller and smaller until there were nothing but worms burrowing in mud. In the last bowl there was nothing to be seen at all.

Wimpolo stared at these horrors through a thick glass door. She could see that it was glass of a type that was opaque to rays of most sorts. Each day a man entered the room of the cages to feed the animals, first switching off the ray. He grinned at her, and wanted to tell her the crimes for which the men had been punished. Most of them had made offensive remarks about Bommelsmeth in private conversation and been denounced by spies.

"It's a lie!" growled the most recent and human of the victims. "I didn't say it. I didn't! I didn't!"

Each day his voice was less human, less easy to understand. And each day a slight change was noticeable in each of the other victims as they slid back along the long road to life's beginnings.

As Bommelsmeth had said, Wimpolo had plenty of time for undisturbed reflection. Except to bring her food none came near her.

At last she felt the sub stop. Bommelsmeth came in.

"Welcome to my undersea domain. Am I to take it that we are now friends?"

She glared.

"Come up on deck," he said. "I will give you one last chance before you go into one of those cages."

She came up on deck and saw the vast cavern, the machines, the zekolos and apemen unloading this and other subs and taking out unconscious prisoners.

"You see," Bommelsmeth said, "how vast is my cavern. Most of it was carved out by my own dissolving thread-ray. Above our heads is a thick layer of rocks, and above that nearly a mile of salt water. I have metallic ores here, and vast factories. I am invincible. Your father and his armies can never trace you here. None of your friends can ever find you here."

His booming, boasting voice was interrupted by a commotion below her. A death-ray seemed to be sweeping round the docks, knocking men and apes over. She looked down.

Don Hargreaves stood on the deck of the sub, death-ray box in hand. Beside him was a strange Martian and a zekolo that she recognized as her own.

"I'll be back!" Don shouted, waving an arm. Then he, Martian and zekolo dived into the water.

"Kill them!" Bommelsmeth shouted.

Taking advantage of his distracted attention, Princess Wimpolo dived also, deep into the warm, queer-tasting water of this inner sea of Mars.

CHAPTER VI

Undersea Land

DON HARGREAVES swam as far as he could under water before he came up. Large submarines were all round him. A large searchlight blazed out, looking for him. He went under again, and swam to get the nearest hull between him and the light. He could see nothing of Vans Holors. It seemed to him that the Martian must have been struck by one of the death-rays as he dived. That was one of the advantages of being small: one made a smaller target, and stood a better chance of living through a fusillade of bullets, death-rays or anything else.

Many lights were now searching the waters. Don reached a small quay supported by metal pillars, and hid beneath it.

The zekolo, which, he knew, could hold its breath for remarkably long periods, swam with only the tips of its stalked eyes above the water. It plucked at him as he sat on the tracery of girders, trying to tell him something. At last it went away.

Soon it was back again, swimming among the girders under the quay. Upon its back sat Princess Wimpolo, wet but unharmed.

"My little Earthling," she said. "Your coming saved me from a terrible fate. If ever we get away from here we'll be married at once. I promise you that." And she outlined what Bommelsmeth had told her.

"The fiend," Don muttered. "We'll get away from here all right. Once the commotion dies down we'll steal a boat and put out to sea."

"There is no getting out of here that

way," Wimpolo answered. "This place is one enormous trap. It is a great natural cavern under the ocean, and the only way of getting in or out is by submarine through the locks."

"Hell," said Don. "That's awkward."

"I'd sooner die than be a slave of Bommelsmeth," said Wimpolo.

Many small power-boats, searchlights at their helms, were methodically searching the waters. One nosed its way under the quay.

Don aimed his raybox.

"Leave them to the zekolo," Wimpolo whispered. "Your raybox is wet. It will make smoke and noise."

She whispered the word of command to the zekolo. The creature made its way through the girders, and as the boat passed underneath it dropped neatly into the middle of it.

The men in the boat had no time to cry out, so swiftly did the pincers and the strangling tentacles do their work.

There were deathray boxes and a stock of food on board.

"Now, quickly," Don said. "Put on the clothes of one of these fellows. Disguise yourself as a soldier of Bommelsmeth."

She changed her wet clothes, and he examined her by the light of the searchlight.

"You'll pass, in a bad light," he said.

THEY prepared the dead men with ropes so that they appeared to be looking out across the water. Don's idea was to join in the search for themselves.

Another boat came nosing under the quay.

"Why are you so long under here?" shouted the officer at the helm. "Gone to sleep?"

"We caught a glimpse of the fugitives," Wimplo called back, in as masculine a voice as she could manage. "We are hunting for them."

"Address me in the proper manner," bellowed the officer, furiously. "And don't edge away from me. Come alongside. Show me where you saw them. And what's wrong with that man in your stern?"

The head of the man in the stern was attached to his body only by string, and it was at a curious angle.

Don judged that it was time to fight. A deathray shot out, played right and left. The officer and his crew fell across their gunwales, struck down before they knew they were attacked.

"We'd better be moving," Don said.

They went out from under the quay. The man in the stern nodded approvingly. In the open they put on speed. The man in the stern nodded vigorously. They swerved sharply. The head of the man in the stern fell off altogether.

Fortunately, none of the searchlights seemed to take much interest in them. Don nosed his way past and through the submarines. Most of the searchlights and the boats were searching the water out to the open sea. Therefore Don headed along the shore. They found a barren, rocky cove away from the town. Here they came ashore, tying the boat to a rock and sinking the bodies in deep water.

VANS HOLORS was an excellent swimmer, as nearly all Martians are. His enormous lungs enabled him to remain under water for a long while, and his great muscles carried him through the water at speed. He saw that searchlights and power-boats were out after him. Let them search. They'd never catch Vans Holors, claimant to the title of wrestling champion of all Mars. They'd never have caught him in the first place if ten of those apes had not attacked him at once

with their iron clubs.

It was a pity about that plucky Earthling. The tiny man was not to be seen. Not even a ripple that might have been made by his swimming figure could the Martian detect in the searchlight glare. The little man must have been struck by a deathray. He had not come up.

The idea that Earthlings might be very inferior swimmers, compared to Martians, did not occur to him.

He swam on, not in the least in a hurry. He found a large log, and swam to it with the idea of sitting astride it and paddling. Vans Holors had swum little more than five miles as yet, but he was lazy.

There were too many power-boats about for him to take the risk of showing himself. The simple-minded giant was annoyed at this. Vans Holors wanted to sit on a log, and he couldn't sit on that log because of a lot of pesky power-boats. He'd show them.

A power-boat was racing toward him. Vans watched from the end of the log. The searchers were not quite so keen-eyed as they had been at the beginning of their search.

Vans waited until the boat was close, then swam with his log. He pulled it right into the path of the racing boat, and dived.

Unable to stop or turn in time, the boat hit the log. Three men shot right out of the boat at the impact. The other four rolled over and over in the bottom of the boat. Vans Holors came tumbling over the stern and four blows of his fists silenced them forever.

He looked over the side. The three in the water took him for one of their own men.

"Help us aboard," they asked.

"Do you want a tow?" he said.

"Yes."

Vans picked up a deathray box. The ray flicked from head to head.

"Take hold of that," he said.

"You ask for a tow," he said, "and when I offer you one you won't take hold of it."

He turned to the bodies in the boat.

"Get up, you lazy devils," he said. "Do your job. Run the boat for me."

Naturally, there was no response.

"All right, if you won't do as I tell you I won't have you in my boat. You can swim home."

Picking them up one in each hand, he threw them overboard.

For a while he toyed with the idea of going back and waging a private war on the other power-boats, but he decided that it would be a waste of time. He headed away.

Presently he came to a deserted, stony shore. He came ashore.

SUDDENLY an ape-man sprang down from a big rock and stood before him, waving an iron club threateningly.

"Hrrrumpah!" meaning, "What do you want here?" it growled.

"A fight!" said Vans Holors.

The ape swung the iron club. Vans dodged back, making him miss. The ape, puzzled, swung again. Holors dodged again.

"Tut, tut!" said Vans Holors. "Let me show you how to use that thing."

"Grobah!" said the ape, meaning, "I never did think much of clubs, anyway."

Dropping the club, it charged with teeth and nails.

The wrestling champion knew all there was to know about furious charges. He dropped to his haunches, seized two hairy ankles in his hands and heaved upward. With the force of its own charge and Vans' mighty heave the ape sailed over his head to crash on the rocks beyond, unable to fight.

Holors walked over to it.

"Come on then," he said. "You ask for a fight, and just as I get ready to start you lie down and go to sleep."

He heard a lot of chattering voices.

"A chief! A chief! A king! A killer king!"

Dozens of ape-men had been watching his fight from holes and cracks in the rocks, and they howled approval of his convincing victory.

In a moment or so he was surrounded by them, shouting, worshipping, plucking curiously at his clothing.

"A chief! A champion fighter! Be our king! Be our king! Help us to kill the humans!"

One larger than the rest shuffled forward. He had a forbidding eye, his body was marked with the scars of many old battles, and his huge club had snakes' teeth fixed into it to give added point to its observations.

"That right?" the newcomer asked. "You a king? You a killer-fighter?"

"You said it," returned Vans heartily. "Me number one great fighting champion chief. Me make good king, great fighting champion king."

"Greetings!" said the newcomer, in friendly fashion. And at the same instant lashed out sideways with his club at the Martian's head.

The treacherous suddenness of the blow would have killed almost any man, but Vans had seen the calculating look in the eyes of the other, estimating the distance, and had known what was coming. The pretended friendliness did not deceive the veteran of a hundred fights.

Vans ducked aside from the blow.

At once there began a serious fight in the ring of blue-haired, red-chested and cheeked apemen. It was the near-champion of all Martians against a local champion of the apemen. The Martian had great skill and his strength was not much inferior to that of the ape, but the ape had long claws on feet and hands, and dangerous teeth. His reach, too, was very long. Standing on bent knees, his knuckles touched the ground.

Vans could not duck and grip him by the legs, or the snakes' teeth in the club would have made holes in his back. This ape was much too experienced a fighter to make a wild rush. He was wary, and cunning. The first thing, Vans realized, was to make him drop the club. He seized the hand that held the club by the wrist. The lightning speed of the movement startled the ape-king, but he strove to regain his advantage by striking at Vans' face with the claws of the other hand. Vans gripped that wrist also.

The ape tried to strike at Vans with the nails on its feet, but luckily its legs were much too short. Vans concentrated on making the ape drop the club. Abandoning the club, the ape made a violent effort to break loose. Vans' grip was broken. The club fell.

The two antagonists circled each other, warily.

CHAPTER VII

Battle Fury

THE ape-king had discovered from the strength of Vans' grip that the Martian was a match for him. Mostly, he regarded men with contempt. So soft were their bodies, and so easily were they killed provided one could catch them without deathrays, that killing them gave little pleasure. It was too easy. But this man was different. He was hard to kill. A man worth taking some trouble over.

And Vans had, for his part, realized that fighting this ape-man was a job to

be taken seriously. At long range the ape's claws were a nuisance. They could rip and tear. They prevented Vans from getting anywhere near the ape's body. And if Vans dodged those talons and rushed in to grip the other round the body in his usual way, then the claws on those short legs would come into very effective play. In fact, those claws were a nuisance, whatever way one looked at it.

Vans could not even try a ju-jitsu hold, supposing he got a chance to use one. The ape's bones, being of different shapes from those of men, would probably make any hold he tried ineffective. And that would give those claws a chance to rip at him.

None of Vans' usual tactics were any use here. He had to invent a new way of fighting. So far he had done nothing but retreat and dodge the quick slashes of the claws. The other apes were growing restless. This was slow fighting. There was a danger that they might attack him in the rear while his attention was occupied in front.

The bow legs and long arms of the other were an advantage, too. The ape could pick up large stones and hurl them without giving the least warning. Stones came flying from other angles too. Spectators were choosing this method of expressing their impatience. They wanted action, not dodging.

The ape-king was growing contemptuous. He was slashing more furiously, annoyed with his repeated misses.

Vans tried the dangerous ruse of pretending to slip. The claws slashed furiously, in a swing, trying to take advantage while Vans was off his balance. That was what Vans wanted. He knocked that arm sideways with all his strength, partly turning the ape's body round. At the same moment he ran, and seized the ape in the only way he could, by leaping on his back.

Apes roared and drummed their deep chests with delight. They did not care who won, so long as they had some sport. And this was entertaining. This was a novel way of fighting. This was a new trick to memorize for future use.

Vans' scissors grip round the ape's abdomen would have caused an average man of Mars to burst with a loud pop. The ape's stomach, liver and kidneys were much inconvenienced. The ape had that feeling of fullness that comes after a too-hearty meal. Vans' thumbs were trying to reduce that fullness by preventing air from entering the ape-king's lungs, but, instead of appreciating this kind of attention, the ape-king clawed feebly at the strangling hands.

The two fell, Vans taking the combined weight. But his grip did not relax, neither on abdomen nor on throat. His muscles stood out with a mighty effort. The slightest slackening of the strain now, and those claws would tear the flesh from the bones of his arms and legs.

The ape-king relaxed. Instantly Vans snatched up the dropped club, and made deadly use of the snakes' teeth embedded in it. The ape-king lay still.

VANS never knew whether he had killed the other or not. As soon as he got up the other three of the apes snatched him up, carried him shoulder-high, and all the rest of them began a sort of war-dance in honor of their new king. They roared their war-cry, "Death to all Humans!"

He learned that these were apemen who had escaped from Bommelsmeth's rule and were living wildly. They lived mainly by stealing food in raids. Many were lost in these raids, but fresh desertions kept the numbers of the tribe about level.

"Me great king," boasted Vans. "Me

number one great fighting champion king. Follow me. I show you how to fight. I make you win. I show you how to kill many humans."

And because his way of thinking was, after all, not so very different from theirs, he actually succeeded in getting them to understand a plan of campaign.

They were to creep into the town, not in a pack but singly. When one of them met one of Bommelsmeth's soldiers the ape was to bow humbly and raise his hand in the usual salute. (There were murmurs of disagreement at this.) At close range there was to be a swift attack. The idea was to capture deathray boxes. The boxes already in the boat Vans had captured would do to begin with.

The apes began to lope toward the town. One old ape saw a guard who was alone. The ape went up, bowed and saluted. The soldier gave a contemptuous kick. In an instant he was a dead soldier, and another raybox had been captured.

The other apes, watching from behind rocks, noted carefully how it had been done. They practiced the humble approach, the bow, the servile salute, and the sudden, swift tearing out of the victim's throat. These tactics were tried out several times on the way to the town. Watching apes roared with laughter.

The apemen had tasted blood.

DON HARGREAVES and Princess Wimpolo had landed about half a mile beyond the city. The city was a blaze of light. It ended in a high stone wall on the top of which were set what Don judged to be ray generators of various sorts, as well as searchlights that restlessly roved over the country beyond the town. Uniformed soldiers patrolled the top of the wall.

Outside the wall, scattered about, were miserable huts where apemen lived.

Don wondered why Bommelsmeth had taken such care to guard his city. What could he be afraid of here in his own secret lair, so far beyond the reach of his enemies? But Don saw enough to tell him that Bommelsmeth's own apemen were the danger. A harsh discipline kept them down, as well as the fact that Bommelsmeth's men controlled the food supply.

An apeman approaching one of Bommelsmeth's soldiers had to bow and salute. If he did not a deathray struck him down instantly. And the hand producers of the thread-rays that looked, and felt, like threads of red fire, were freely and painfully employed to liven up apemen who were slow in carrying out orders.

Don tried to bring down one of the soldiers on the distant wall with a deathray. The man was not hurt, but a searchlight turned at once in Don's direction.

So Bommelsmeth's sentries were shielded against deathrays. There must be a wall of special impervious glass protecting them. And automatic direction-finders located the source of deathrays that attacked the shield. Don was glad that he had turned his deathray off promptly.

Through the darkness a host of stealthy figures was creeping, widely scattered and carefully avoiding the flashing searchlights. He discovered them suddenly, with a shock. Quite close to him an apeman bowed in servile manner to one of Bommelsmeth's soldiers. Suddenly, the ape's long arms shot out. Taken completely unawares, the soldier was killed instantly. The apeman went on with the strap of the soldier's deathray over its shoulder.

Other soldiers fell. Shaggy figures

drifted into the city, one by one, through the gates. Sentries on the wall, smitten mysteriously, stiffened abruptly and fell.

Suddenly, it was open war. Rays flashed. Men and apes died soundlessly. The main body of the apemen surged forward towards the gates their comrades had captured. Deathrays from uncaptured parts of the wall played havoc with their packed masses.

In the general darkness, relieved only by a few roving searchlights, it was impossible to form any estimate as to how many got through and how many were killed. The impatience of the apemen, causing them to attack too soon, cost them many hundreds of lives. But a large number got through.

"Come!" said Don to Wimpolo. "Let us join in the attack."

"Where you lead I follow," she said. "Death before capture."

DON'S nerves were quivering with excitement, but she was as calm as ice. Her courage was amazing to Don. He wondered how many high-born ladies of Earth would have behaved as well as she was doing if they had suddenly been plunged into such terrible experiences as the gigantic Martian Princess had been. With long ages of peace and advanced civilization the emotion of anger had almost died out among the highest races of Mars, and with it had gone fear, which is always the power behind anger.

Don expected trouble at the gate, but he, Wimpolo and the zekola went openly and unchallenged into Bommelsmeth's city. Wimpolo was in the uniform of a soldier of Bommelsmeth, and Don had also adopted a badge or two. In the confusion there was a good chance of their being able to get about unnoticed.

Inside the city was a wild confusion. The deaths of so many of the apemen made no difference to the spirits of the rest. They scattered in all directions, their deathrays now flickering everywhere. Every apeman seemed to have a deathray now. Those who had not soon picked one up from a soldier slain by one of the others, or from a dead comrade.

Several times Don saw an apeman fingering one of the little pistols that produced the red threadray that, with its effect of intense fire, had so often scorched and tortured them in the past. But the apemen could not understand the working of these weapons. Bommelsmeth had taken great care that these pistols should be too complicated to be understood by ape brains and too delicate to be operated by ape fingers. The fire that was not fire was not for apemen to use.

In any case, in confused street fighting, where there were no fortifications and no armor to be attacked, deathrays were a much more suitable weapon than the threadrays.

Throughout a wide section of the city sounded a curious sound. It was the apemen drumming on their chests. At the same time they were roaring their deep-throated war cry, "Death to all humans!"

The apemen in the city, submissively carrying out their tasks, heard the blood-curdling war-cry. It stirred their blood with dim ancestral memories of forest, of battle, of blood. It set their huge adrenal glands pouring the hormones of battle fury into their bloodstreams. A red haze of rage floated before their eyes. They turned on their task-masters. They leaped blindly at the nearest of Bommelsmeth's men.

Most of them died, but many survived. For apes outnumbered men here many times to one. And one man cannot defend himself against the sudden,

unexpected attack of a dozen at once. Many a soldier struck down two apes before him, but fell to a third behind. Many a soldier failed to hear feet softly padding behind him, or fell to a hurled brick or iron club.

In open spaces, standing shoulder to shoulder, men might still be masters, but in narrow streets the apes, with their quicker eyes and much sharper ears, were soon in control.

Don and the Princess made for the docks, Don ahead. Being small, he saw apemen before they saw him, and shot them down before they could attack Wimpolo. For the apes had entirely forgotten their human king, Vans Holors, now, and had only one idea, to kill human beings, Vans as well if they could.

A SQUAD of soldiers, marching shoulder to shoulder, came suddenly upon Don and Wimpolo. The soldiers stared at Wimpolo, seeing something strange in her figure. They wondered, too, what the tiny Earthling was doing with her.

"I bear an urgent message," Wimpolo cried. "I must not be stopped. Every moment is precious."

The soldiers began to march past, but an officer confronted her.

"Who is your message for?"

"General Soloroff," answered Wimpolo, relating a name she had heard.

"General Soloroff is in the upper world, leading an expedition," snapped the officer.

"I mean General Bissalak."

"Why doesn't he use the television? My portable set would relay your message, whatever it is, in an instant. And what are you, a woman, doing in the uniform of a soldier?"

He had penetrated her disguise, at least partly. Don's deathray flashed out, focus turned right back, intensity at half strength. The officer fell unconscious at once, and so did the soldiers in front of them.

Most of the marching men had turned the next corner, and before they realized what had happened and turned to attack the two, Don and Wimpolo had run round the next corner and jumped into the window of the first house. The soldiers could not stay to search long: their presence was needed to help their hard-pressed comrades in the thick of the battle.

The house was empty. Through the window they saw apes pass, hunting for men, and they saw men pass, hunting for apes.

An apeman crept toward a soldier. The ape aimed the ray, lever full on. He pressed the button. But the soldier did not fall. Instead, he turned and fired at the ape with a threadray pistol. The ape fell, a hole as neat and round as a penny drilled in his chest. A small cloud of dust, looking like smoke, floated in the air.

A sudden thought made Don try his own deathray. It was out of action. Bommelsmeth had turned on his blanketing ray, which short-circuited deathray boxes. But his own soldiers still had their threadray pistols, which were unaffected. It was Bommelsmeth's trump-card for just such a situation as this.

"Now the apemen will all be killed before long," Don said.

"There is one way we might possibly help them," Wimpolo said.

"What is it?"

"If we could put out the lights of the city," said Wimpolo. "That would create confusion and give the apes an advantage."

"Can we do it?"

"If one is short-circuited it will put them out over a large area," she said. She turned to the zekolo and pointed

upwards. "Break, destroy, kill," she said. But the creature only snapped its pincers together, not understanding. It could see no one on the roofs to kill.

"Give me your sword," she said to Don. Then, to the zekolo, "Climb, carry me."

At once a pincer lifted her onto its back, and another reached out to grip the wall above. Soon it was going up like a spider, carrying her.

Don watched, heart in mouth. If a soldier saw her now he had no deathray to defend her with. The street lights stuck out from the roofs of the buildings, at an angle. Wimpolo's figure was draped across one, the zekolo holding her in case she fell. She looked very small up there, but her shadow was enormous. He heard his sword ring against something. There was a sudden burst, a flash of flame, and fragments fell in the street.

Suddenly the place was in darkness.

CHAPTER VIII

Bommelsmeth Again

VANS HOLORS put on the uniform of a dead soldier, and when the confusion began he walked boldly into the city. The guards at the gate were too busy to challenge him.

His army had melted into the confusion of the streets and a thousand obscure scraps raged in dark corners. More than half had been killed outside the city, he reckoned, but innumerable recruits had joined it inside. Vans had lost what little control he had over them. They were shouting, "Death to all humans!" and he knew that they would ray him down as soon as they saw him.

Vans did not like this sort of fighting, this peeping round corners and hiding in doorways and on roofs to aim deathrays. So that when an officer demanded to know who he was Vans felt quite happy as he struck the man a sideways blow with his flat hand, cracking his skull. That was how fighting should be done, Vans thought.

"You should not be so inquisitive. Got your ears boxed," he said. "That'll teach you not to ask awkward questions."

He stepped over the body and walked on.

But he had to use his deathray several times before he went very far. He was wearing his badges upside down and in the wrong places. They were mixed up, too. It was as though an Earth soldier wore a Sergeant's stripes on his arm, a Captain's badges on his shoulder, and on his head the hat of a Midshipman in the navy. Every soldier who came near him knew at once that there was something wrong. Vans was very puzzled at this. He thought his disguise perfect, yet these men all saw through it at once.

He saw a soldier coming toward him. Anticipating the man's suspicion, he flicked the deathray switch. The soldier did not fall, but came on. For a second or so Vans, who hardly knew fear, was frightened. Was the man immortal, impervious to the deadly ray? Then he remembered Bommelsmeth's blanketing ray, and realized that the deathray had become discharged.

"What are you doing with that box?" demanded the soldier.

"Oh!" said Vans, trying to smile disarmingly, "I didn't see you there. I was just testing the valves. I had the lever at safety."

"It's not at safety now," said the soldier. "It's at full, lethal strength. I believe that you tried to murder me."

A hard, calculating look came into the man's eye. His left hand moved.

"He's got something in that pocket,"

thought Vans, and his left hand shot out with a speed that looked impossible for one so slow and heavy. The Martian fell, his neck broken, just as the threadray pistol touched Vans' chest.

"That was the closest thing in my life yet," thought Vans. "What is this funny pistol with the tiny ray that burns?"

He experimented with it, pressing buttons, and gasped in amazement as he saw a house on the other side of the street, cut in halves diagonally, collapsed in thunder and smoke.

"Burning ray," he decided. "Hand generator. Dirty way of fighting."

He wondered why it was so cold to handle, and why it started no fires. Things melted away in smoke and dust, but no fire broke out when the ray was turned off. Cold fire, he thought. Queer.

SUDDENLY he came on a triple fence of barbed wire. Inside the wire were Vans' neighbors from Selketh. Above them the ray-producer, like a searchlight, pointed down. As yet it had produced no apparent change in them. They wondered why they were kept here, obviously subjected to the effects of some mysterious force.

A cold rage rose in Vans' throat. His sparring partners were there, his chums, and a Martian girl he was sweet on, standoffish though she was. He would show her what sort of a fellow Vans Holors was.

It would not be easy, though, to get the better of over a dozen guards at the gate in the wire. The situation needed careful handling.

He put on a broad smile, grinning all over his face. But another man of his own profession would have seen the bleak, stony look in his eyes, and would have known that the grin was a mask. He was going forward to kill, and against odds. His hands were empty, and he walked with a careless swagger. Within the wire fence the people of Selketh whispered to one another, "It is Vans!" Those who were fans of his waited confidently for a miracle. Others, knowing his reputation for poor intelligence, looked for him to be killed.

Vans knew the faith of his fans. He would not let them down, he resolved. He hoped the girl was watching. She might change her opinion of him, even if he could not keep pace with her friends. Silent, tongue-tied Vans would show her he had his uses, after all.

"Hey, chums!" he called to the soldiers. "There's been great fighting, back there. Great fun we're having. I killed a dozen apes myself. Don't you find it slow here?"

The officers in charge gaped in bewilderment at this amazing soldier. Never before had a man of Bommelsmeth talked in this way. What rank was the fellow? According to his queer assortment of misplaced badges, the burly soldier in the ill-fitting uniform held a dozen ranks at once.

"Who are you? What are you doing?" an officer snapped.

"I have an important message for you," said Vans, smoothly. "Straight from the big chief."

"I'll have you shot, calling our emperor the big chief," barked the officer. "Give your message."

Quite slowly and casually, Vans put his hand in his pocket. His huge hand covered the threadray pistol completely. The officer tried to snatch the supposed message from him. Vans avoided his hands, brought the ray pistol level with the officer's nose.

"Read that! Smell that!" said Vans, in another, exultant voice.

FOR a fraction of an instant the officer knew that he was straight into

the ugly eye of death. Then Vans' ray drilled through his brain, melting away nerve-cells much too quickly for the slow chemical changes we know as pain. To the officer it seemed that the whole universe dissolved in a great flood of light and a loud roaring noise. There was a hole the size of a penny neatly drilled through his head, and in the air a cloud of cold smoke and steam, smelling like a joint of meat cooking in an oven.

Without haste, Vans moved the threadray right and left. It cut like a knife. Flesh and bone poured like water. There was much steam, for flesh is mostly water, and a strong smell of cooking. One Martian was cut through the middle, another's arm was cut off, another's legs, another's head. The ray returned and finished off those who were not obviously dead.

"Have to get mother to sew you together again," he exulted.

Vans seized the massive gate and wrenched at it, not stopping to think that the threadray would have saved him the trouble. His enormous strength tore down the gate at once.

"Come on out," he roared. "Vans Holors has set you free."

Nobody moved. There were four gates to the enclosure, a dozen guards to each. Vans had attended to only one. At each of the other three soldiers were jumping to their feet in alarm, bringing threadray pistols to bear.

On a high building like a sort of watchtower two huge ray generators swung round. One was a cohesion-neutralizing ray, the other a nerve-stopping deathray that had been shielded from the discharging beam. A score of threads of red fire struck the ground around Vans, moved toward him. The ground boiled, but there was no smoke. One touched his shoulder glancingly, and he was puzzled that, although the ray was cold, yet, when it touched him, it felt burning hot.

He was surrounded by the deadly threads of imitation red fire. He ducked instinctively as something seared his head.

All at once, the light went out. Complete darkness fell over everything, except for those menacing threads of red. Vans dodged through them, for now they were still. The operators of the rays could not see their target.

The people of Selketh poured out in the darkness.

"Vans!" called a feminine voice.

"Olla!" he replied.

"My hero!" she whispered, throwing her arms round him.

She had once thought him an uncouth, brutal, ignorant man. Now he seemed to her handsome, witty, dignified, everything a man should be, a man for all girls to worship in dumb admiration. Just that much difference had the evolution-reversing ray made to her. She had lost a little of her refinement. Vans looked different to her now. And she was happy, not knowing of any change in herself.

DON and Wimpolo went through the darkened city. When they came to the edge of the darkened area Wimpolo pointed to a light and whispered to the zekolo, "Light! Smash!" The creature, having seen Wimpolo perform, knew now what to do. Soon another section of the city was in darkness.

Searchlights glared, trying to pierce the gloom. They dazzled more than they helped. Little else but headlights on the helmets of soldiers lighted the gloom, an these soon went out. To show them was to ask for a huge stone or an iron club to come hurtling at one out of the darkness.

In the blackness the apes ruled supreme. They could pick out their foes by smell or by the sound of their breathing. The confused fighting swung the way of the apes again. Presently even the searchlights on the roofs went out, for apemen, climbing silently up the walls of the houses, overwhelmed the crews of the lights by hurling stones at them, or iron clubs.

Soon, utter blackness reigned over wide sections of the city. In the dark were none to dispute the reign of the beast. And the zekolo added section after section.

Abruptly, Don and Wimpolo came upon a company of soldiers, each with a bright searchlight in his hand. They were marching in mass formation, trying to restore some order in the darkened parts of the city. Their lights blazed all round them. An ape hurled a huge stone at them from a rooftop. A searchlight picked it out, and before it could escape a threadray cut out a section of the top of the wall, the ape falling with it.

"Haven't you got a searchlight?" the officer in charge snapped at Wimpolo. "It's as good as suicide to walk the streets with only a little headlamp. Go to the big sub, at once. Lights are being handed out there."

Wimpolo hurried along the streets. In the uncertain glare of the flashing searchlights none suspected that she was a woman. On the wall of the buildings the zekolo, like a huge spider, kept pace with her, Don on its back. An ape on a roof poised a stone to hurl at Wimpolo. An arm of the zekolo, stretching incredibly, snatched that ape off the roof and hurled it into the street.

They reached the docks where the big sub lay. The place was such a blaze of lights that the failure of the city's illumination was not noticed. They dared not enter the brightly illuminated dock. Soldiers were arriving here, being handed out searchlights, and marching away in squads of twenty, an officer in charge of each squad.

"I have an idea," Don whispered.

He gave the command, "Hoddors!" to the zekolo. The creature slid over a darkened quayside into the water. Its pincers lifted Don and Wimpolo down, onto its back. It swam between mighty hulls. Presently Don whispered the word. They went swiftly over the edge, and dropped into the cargo hold where Don had stowed away on the journey here.

ABOUT half the cargo had been offloaded. The metal plate that Don and the zekolo had pried loose was still open. They went through the hold where the people of Selketh had lain imprisoned, first helping themselves to re-charged deathray boxes from the cargo hold. They were the boxes that Vans and he had re-charged for their break which failed to come off. In here they were shielded from the blanketing ray.

The door through which the prisoners had been fed was open. They went along a corridor. A sentry, hearing a slight noise, turned. He had time to open his mouth halfway before he fell, his intended shout a mere gurgle.

They stepped through a door. Another sentry gaped, and fell. Two others were in front of a cabin door.

"Bommelsmeth's room," Wimpolo whispered.

The two sentries fell, caught unawares.

Wimpolo laid a hand on the door, opened suddenly. Don walked in, raybox ready.

A lean man, a haggard, desperate look in his eyes, sat at a table before a huge television view of the darkened city. He wore the regalia of Emperor and overlord of all Mars.

"You are my prisoner, King Bommelsmeth," said Don, coming to the point at once.

CHAPTER IX

The Return

BOMMELSMETH stared in open-mouthed amazement at the tiny Earthling.

"You, you little worm?" he gasped.

Then Wimpolo entered. Two deathrays menaced Bommelsmeth.

"I see," Bommelsmeth said, quietly. "Me, Emperor of Mars, beaten by a tiny man from Earth and a woman."

He laughed a cracked sort of laugh.

"What do you want me to do?"

"Return us in safety to where we came from."

"I seem to have no choice," said Bommelsmeth, with a resigned shrug. "I'll tell you what I'll do. A party of your people from Selketh are marching here now in mass formation. They escaped from my prison camp, and they are fighting their way here. It has been magnificent to watch. They have nothing but stones and a few threadray guns they have picked up on the way. Whenever they meet any of my soldiers or apemen they all throw their stones and fire the rays they have together.

"By standing solidly together they have overcome all opposition so far. But as they reach the dock gates my big shielded ray machines will mop them up. I will give orders that they are to be allowed on board this sub, and that the distribution of searchlight is to go on from other subs. Then the Selketh people can take charge of the sub, and return home safely in it."

"With you as our prisoner?"

"If you insist."

"Very well then," Wimpolo said.

Bommelsmeth operated his television. Alert for trickery, Don and Wimpolo watched. Bommelsmeth gave the orders. In the television they saw Bommelsmeth's men leave the sub. Wimpolo and the zekolo went to the control tower to direct Vans and his little company when they appeared.

Don was left guarding Bommelsmeth.

"You needn't keep that thing pointing at me," Bommelsmeth said, nodding at the deathray box. "It's not pleasant, from this side."

"You promise not to start anything?" Don asked.

"I promise."

Don turned the box away. At once Bommelsmeth's hand shot out and threw a small lever in the wall. There was a sort of fizzing noise, and Don knew that his deathray was useless. The blanketing ray had discharged it.

Bommelsmeth leaped to his feet and threw himself at the little man.

DON just managed to twist out of the way of the fallen table.

"Now we'll see who's who, little Earth rat," Bommelsmeth snarled.

Don snatched out his sword.

Bommelsmeth backed to the door and locked it. He picked up a heavy chair and hurled it at the Earthling. On its way through the air the chair struck the hanging lamp that lit the cabin. The lamp broke. The cabin was in darkness.

Don managed to avoid the flying chair, but bruised his legs against the fallen table. He did not know where Bommelsmeth was, or he would have attacked. He could hear the giant's heavy breathing, and tried to locate it. Bommelsmeth, trying to walk silently, blundered into more furniture and knocked it over. Don tried to creep in the direction of the sound, but more fallen furniture was in his way. There always seems to be four times as much furni-

ture in a darkened room as in a lighted one, and Bommelsmeth had the advantage of knowing his way around it.

Now the giant seemed to be trying to climb over the fallen furniture in the middle of the room. Don tried to judge where he was to get in a thrust with his sword.

Bommelsmeth's huge hand gripped Don by the shoulder. In the darkness he had taken it for a table-leg or chair-leg. For a fraction of an instant both were too amazed to move. Then Don thrust with his sword at the same instant as Bommelsmeth, letting go, struck downward with some heavy object.

Both blows were stopped by the table. Don's sword struck the underside, and Bommelsmeth's club, or whatever it was, struck a leg.

Both leaped backward.

Don dared not turn on his headlamp. If he did Bommelsmeth would almost certainly see him first, and throw something. And a heavy object thrown by the giant Martian would mean curtains for the Earthling if it struck him.

He heard Wimpolo knocking on the door and calling. She had heard the noise, but dared not use a threadray pistol on the door for fear of hitting Don as well.

Don made sure that the table-top was above him, and called out, "Go the other way!" Something hit the top of the table with splintering violence. He thrust where he judged that the giant was. He felt a slight resistance to his sword, and felt blood on the point. But a glancing blow on the shoulder made him dizzy.

He thought he heard Bommelsmeth open a door. He heard Vans calling. A door opened behind him. He staggered out.

"Bommelsmeth's in there," he gasped. "I heard him open a cupboard. I think he got a ray machine of some sort out."

A dozen men entered. The cabin was flooded with light.

It was empty.

THE cupboard door was open, and blood was on the floor. Another door gave onto a passage. There was blood on the floor of the passage.

Outside a splash sounded.

"He's got away," Vans decided. "Start up the engines before the other subs turn their rays on us."

The sub churned out to sea. Don played the big deathray in the control tower over the water in the hope of catching Bommelsmeth with it. But as they were getting clear of the harbor a sub that had lain near them in the dock suddenly swiveled a large threadray projector towards them. For an instant or so it was touch and go, but Don, at the ray controls, silenced it.

Now the other subs were turning to attack. Bommelsmeth had plainly got out of the water and was directing them. Rays blazed. The big sub had the advantage that it was away from the lights and moving, while the others were stationary and well lit.

Don thought he had sunk several of them, but could never be sure. The big sub reached deep water and submerged. An hour they ran under water, then were able to breathe freely again. They had got away.

"I'll end Bommelsmeth's capers for ever," Don said. In the deep sea, far from sight of land, he set the big threadray projector working. It was aimed upward, at an angle. Up above terrific clouds of smoke arose as the cohesion-neutralizing ray turned stone into gas or fluid and then let it turn back into dust again. Tremendous masses of stone, no longer supported, fell into the sea with such splashes that the sub was nearly overwhelmed. A gigantic hole

was being opened in the roof of Bommelsmeth's undersea cavern.

For minutes this went on, until the smoke and dust filled the air like dense fog. No longer could Don see what he was doing, but only continued to operate his ray blindly. Other subs were hunting them. They could detect the vibrations of their engines. But so dense were the clouds of stone dust now that they were perfectly safe from being found.

At long last a thunderous roar of falling water was heard. A way had been cut through the cavern roof right to the ocean above. The main Martian ocean was thundering through, falling into the inner sea like a mighty cascade. Not too soon was it, for the sub's supply of water was getting low.

Don turned off his ray. The tumultuous waters themselves would soon tear the hole larger. They heard mighty splashes as great masses of rock fell, and each time the thunder of entering water sounded louder.

They submerged to get away from the surface, which raged like a great storm. It was nearly two hours before the sea was calm enough to let them come up. Water now filled the great cavern nearly to the roof, but still there was a strong current downwards from the hole.

THEY set the sub against the current, seeing their way by television. Only by the most hazardous skill was it possible to nose a way out and up, to where they could fill their lungs with fresh air on the surface of the main underground Martian ocean.

Wimpolo called the people together to hear an important pronouncement.

"People of Mars, and loyal subjects of my father, I thank you all for your support during the dangerous times we have just passed through. Now let me show you your future overlord, the man who was really responsible for saving us from the evil designs of Bommelsmeth. My future husband, your future Emperor and overlord, the little man, Donald Hargreaves of Earth!"

She raised him to the level of their eyes, sitting on the palm of her hand. They thundered applause.

"Power to Prince Donald!" they shouted.

Vans Holors was sitting with Olla on his knee when he heard the news. At once the surprised Olla was bundled off. Vans raced out.

"Hey, king!" he called. "King Donald!"

"Not yet, Vans," Don said, smiling up at the huge figure. "What is it?"

"I want a fight!"

"Eh!" said Don, when he had got over the shock. "You can't win the throne of all Mars by fighting, same as you won the rule over those apemen."

"It's not that," explained the wrestling champion, embarrassed. "I don't want to fight you. There's a big bum who calls himself wrestling champion of Mars. If I could meet him I know I could tear him in pieces. But he's yellow. He takes on second raters only, dodging me. Now if you could fix that for me, king, I'd be eternally grateful to you."

And the most powerful man in two worlds fixed his eye on the little Earthling, pleadingly.

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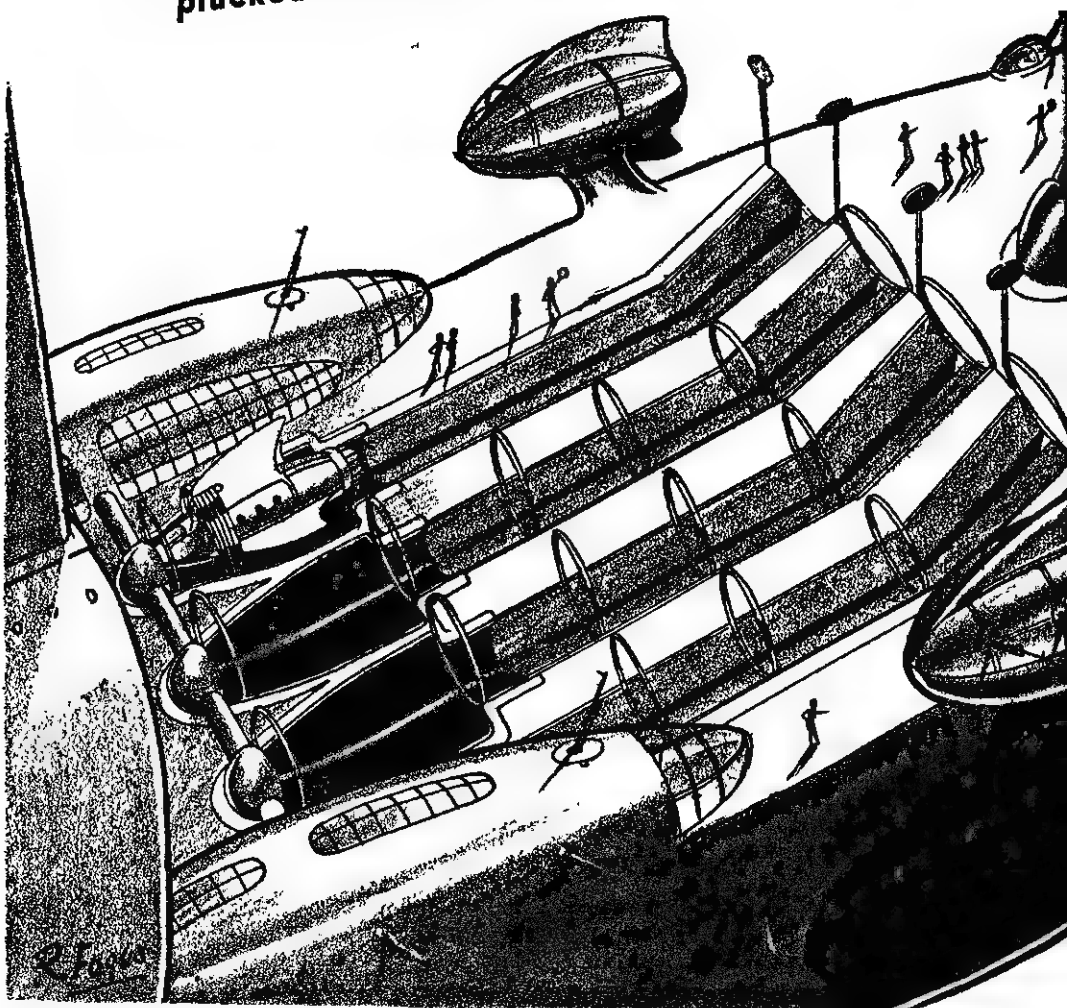
Sergeant Shane of the SPACE

by JOHN YORK CABOT

Shane made his biggest mistake when he plucked his eyebrows because of a girl



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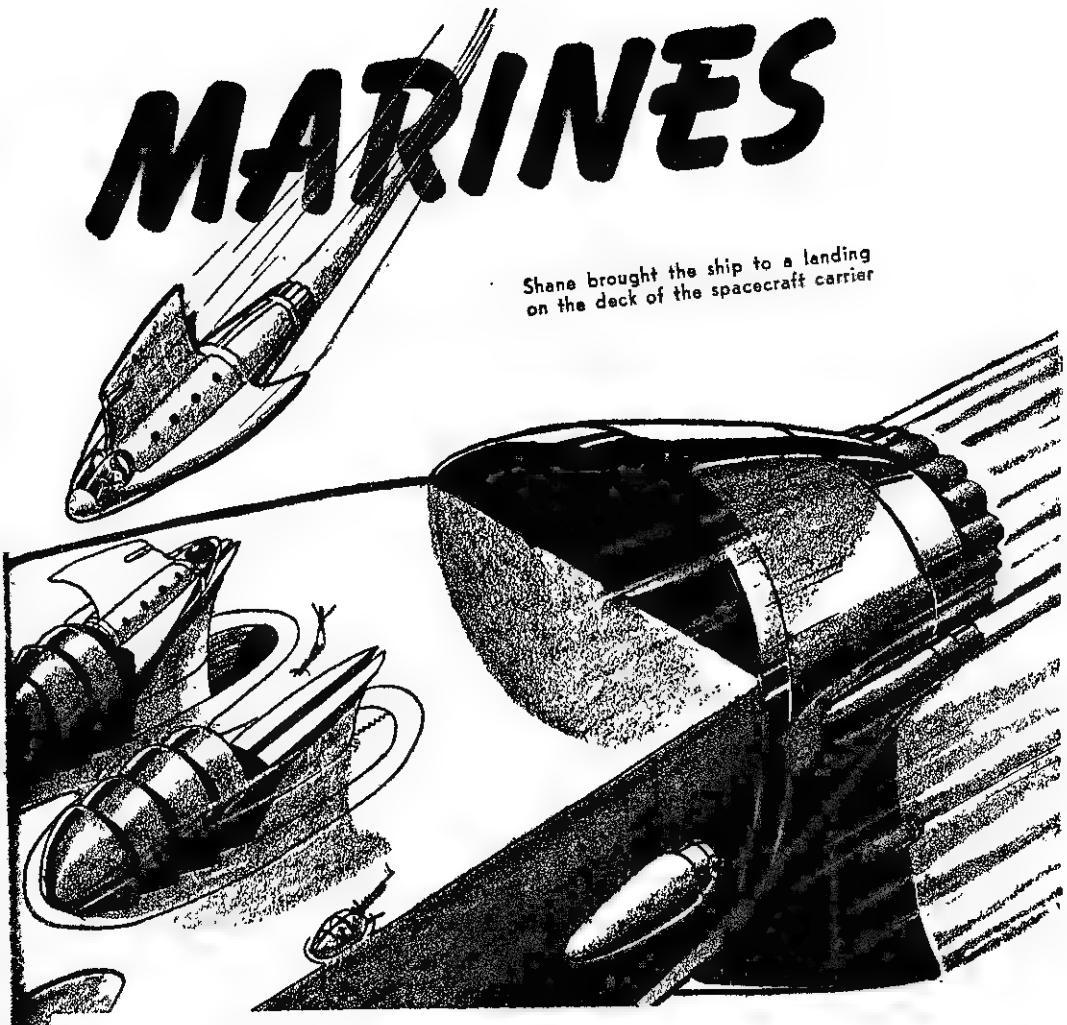


Shane brought the ship to a landing on the deck of the spacecraft carrier

"IT can't be true!" I muttered. "It just can't."

He was squatting on the edge of his duralloy sleeping cot, a planerium mirror propped up in front of him while he carefully plucked his bushy blond eyebrows with a tweezers.

I looked at him for almost a minute, fighting back a sudden impulse to konk him on the back of that shaggy tow head of his. It was obvious that he hadn't heard me come in, for now he broke forth in an off-key, saw-toothed basso.

"It is looooooove, it is looooooove, that I feeeeeel," he vocalized. "It is looooooove, it is looooooove, that is reeeeeeeal!"

This was more than I could stand, so I said, making my voice a high treble.

"All right, dearie, I'll buy you that precious gingham tunic!"

Sergeant Shane wheeled, his big adam's apple bobbing in his leathery throat like an egg in a hose. He made a frantic effort to hide the tweezers under his coat. His face, beneath that shock of tow hair, was as red as a Saturn sunset.

"What goes, Sarge?" I demanded.

"Are you practicing to go into Grand Opera, or," and I looked significantly at the spot where he'd concealed the tweezers, "are you just studying to be a female impersonator?"

"Heh," said Sergeant Shane, still crimson, "quit your kiddin', Corporal Cork. I aaa, ahh, er—"

"Okay, Lochinvar," I sighed. "Who is it this time?"

Shane is as ugly as a Venusian mud fence. But his big pan wrinkled into an expression resembling a cross between sheer ecstasy and stomach pains.

"Varda," he said, sighing deeply.

"Varda?" I sat down on the edge of his bunk. "Who's this Varda? Never heard you mention her."

Shane sighed again like a sick calf.

"I just met her, this very afternoon."

I blinked. We'd only been moored here on Venus since morning. Our big battle wagon, the *F.S.S. Western Hemisphere,* had put in as part of the Fleet's much vaunted Good Will Tour of the Interplanetary belt. Shane had already been ashore, carrying a message from the Admiral to our consulate. And evidently he must have run into this Varda wench some where along the line before coming back to the ship.

"Don't tell me," I said. "You met her this morning, after you'd taken the papers to the consulate for old Ironpants. You probably got thirsty and dropped into a joint for a quick nip on the way back to the ship."

"Howdja know?" Shane grinned guiltily.

"My priceless intuition," I said. Then, catching him off guard, I thrust, "What were you doing with those tweezers?"

He flushed. "Aw, cut it. Okay, so I was plucking my eyebrows. Is that a crime?"

"It is for a Space Marine," I said.

"Varda," Sergeant Shane said valiantly, "thinks my big bushy eyebrows mar my naturally handsome appearance."

I choked, then managed to say, "So itsy-bitsy Shanesy had to tweak 'em out to please itty-bitty Varda, huh?"

Sergeant Shane stood up. He has a build like a weight lifter. Long arms with big red paws. Shoulders wide enough to hold a battle wagon on either side of his cauliflowered ears—but only reaches a total of five feet four inches from the floor.

"So you'd like to make something of it?" he asked.

"And lose my liberty ticket?" I answered. "Not on your life. I've seen too much of that damned brig in the past year. Go pick a scrap with someone who doesn't care about shore leave."

Sergeant Shane scratched his thatch of tow hair, then relaxed.

"Okay," he said. "But no more cracks. If you're a good guy I'll even let you meet Varda."

"Is it true love this time?" I asked.

Shane put a big paw on my shoulder.

"Corky, so help me, this is it. There's not another wen—I mean girl, in the universe to compare with Varda." His square jaw thrust forth to add an honest emphasis to his statement.

It was always true love with Shane. Every time. Every port.

"I can hardly wait," I told him.

VARDA was a Venusian cutie, a fact which my chum Sergeant Shane hadn't mentioned. She had hair that was blacker than black and hung all the way to her pale white—and very lovely—shoulders. Her eyes had the typical almond Venusian slant to them, and were also ebon. She was a looker. There was no doubt about it. And this fact surprised me not a little. Shane generally wound up with something

pretty much on the dreadful side.

We were in the same Venusian joint in which Shane had met Varda that afternoon. It seemed that she was a singer there, and had been sitting around, just about to go to work, when Shane began shooting her a line and buying drinks.

Varda was just finishing her number as we came into the place. Her voice was pretty mediocre. But to Shane—who has the melody sense of an alarm siren—her voice was magnificent. We took a table near the bar and ordered a couple while watching her do the last chorus.

She spotted Shane almost instantly, and gave him a come-hither smile through the last notes of her tune. It was the same ditty that Shane had been ripping apart that afternoon.

"Whatdyuh think of her, Corky?" Shane asked, pleased as punch.

"She's a looker," I said noncommittally.

Then the girl was over at our table, and Shane was on his feet—something that amazed me—while he said,

"Varda, I'd like you to meet my best pal, Corporal Cork."

I noticed that Shane emphasized the Corporal part of it, while thrusting his tunic sleeve with its Sergeant's markings conspicuously before her eyes.

"How do you do, Corporal," Varda said, taking the chair Shane pulled out for her.

"Pleased to meetcha," I grunted and sat down.

"It must be simply wonderful to be soldiers," Varda cooed. I glared at her, and she hastily corrected, "I mean sailors."

"We're marines," I said caustically.

"But of course," Varda giggled prettily. "Marines."

There was a somewhat uncomfortable silence in which Shane glared at me as though I'd deliberately insulted the wench. Then Varda opened up again.

"Sergeant Shane was telling me this afternoon what important work his Admiral sends him on," she said.

Shane just about gagged on his drink. His little trip to the consulate was not supposed to have been for publication.

"Is that right?" I asked, looking over at my red-faced chum. "Do tell me more."

Shane broke in hastily.

"That was a pretty sweet number you just warbled, Varda," he said. "I was trying to remember it this afternoon."

Maybe it was because Shane had picked a beauty, and I was just the friend of the happy couple. Or maybe it was because I've never liked the slop they pass off for Venusian liquor. At any rate, I was feeling a little spiteful.

"Do you notice anything different about Sergeant Shane?" I asked her.

Varda looked puzzled.

"I mean, different from this afternoon. Around the head, for instance," I persisted.

Shane was redder than a fire-belt asteroid.

Varda suddenly squealed in delight.

"Shaaaaaneeeey," she cried. "You've plucked your eyebrows!"

My chum looked both pleased and embarrassed. Varda's voice had carrying power, and people at the other tables were looking over at us.

"I'll buy a drink," Shane blurted. Which shows how shaken he was.

WELL, a minute or so later Varda had to go back and do another number. That left us with a few things to talk about. Shane was first to clear his chest.

"Look," he snarled, waving a stubby finger at me. "I don't want no more cracks about me, y'unnerstand?"

"You're certainly a blazer," I coun-

tered. "Telling the little daisy where you'd been, and what you'd done. If the Admiral ever got wise to the fact that you're a one-man information bureau, he'd break you so fast you wouldn't hear the crack!"

"It didn't make any difference," Shane said.

"No. But it's just the idea that regulations forbid it," I answered. "You'll get in hot water someday, with your bag of wind."

Shane lapsed into a sullen silence. Then Varda was singing again, and a silly expression crept into his eyes, and I knew there would be no sense arguing with him any longer while she was making noise. I ordered a few more for the table. Varda kept coming to the table and going back to sing for the next four or five hours, and we were both getting pretty plushed in the pan.

"Look," I remember saying to Shane, some time later, "we only got a ten-hour liberty. We'd better shove outta here."

"You go ahead," Shane said, pleased with the suggestion. "I'll see to it that Varda gets home safely."

"You will not," I snapped. "You'll never make it in time. Do you want to get slapped in the brig?"

"I'll take Varda home," Shane said. And I'd heard that stolid, stubborn tone in his voice before.

"You'll—" I began. And then Varda was back at the table. She seemed flushed, which was strange considering she hadn't been drinking. She grabbed Shane by the arm.

"Please," the girl said, and her lips were half parted in fear. "Do not look now. But there are two dangerous men here who will probably try to follow me when I leave. I am through after the next number. These men have followed me before, and I am afraid."

This was all Shane needed. He glared triumphantly at me.

"I will see Varda home safely," he repeated. "Especially now."

I was sore.

"Where are these muggs?" I demanded.

"Look over my shoulder," Varda answered breathlessly. "At that table near the wall. The two hard-looking men sitting there."

Dubiously, I took a peek. There were two extremely rough-looking gents precisely where Varda had said they would be. This was unexpected. I'd figured it as a gag.

And—it gave me a slight, unaccountable chill—they were looking fixedly in our direction.

"Where are they?" Shane demanded, his face creasing in anger. He twisted around in his chair. The two toughs were now looking the other way. Shane started to rise. "I'll take care of them—"

"Cut the moon man melodramatics," I snapped, "and sit down!"

SURPRISINGLY enough, Shane gave gave me a funny look and resumed his seat. I don't know why, but I suddenly felt like a Great Mother, a Big Protector. I wanted to take care of chum Shane and see to it that he didn't get brigged; and in addition, I wanted to make sure that the Varda wench wasn't roughed by those space bums.

"Look," I said. "Shane and I'll leave as soon as you start your next number. You'll be through here, when you get done with it, and we'll be waiting for you just outside."

Varda gave me a grateful glance.

"Thank you," she whispered, bending close to me. A whiff of the perfume she wore began to make me realize what Sergeant Shane found in her.

Shane stood up as Varda left the table.

"Not a bad idea, Corky," he said to me when she had gone. We plunked our uniform toppers on, left some credits on the table for the bill, and sauntered casually out of the place.

"Are you sure you don't want to head back to the ship?" I asked my Sergeant Lochinvar, when we stood outside the tiny dive in the dim light of a narrow, dirty street.

Shane bristled.

"With Varda in danger?"

I sighed. But even so, this was looking up. If it hadn't been for the two space lugs inside, I'd have been pulling Shane away from the place, even if I had to pop him on the chin when he wasn't looking. But the prospects of a little trouble—well, that made it different.

"Okay," I said. "I'll stick around, just to see that you keep your ugly snoot out of trouble."

"I'd thank you," Shane muttered ungratefully, "if I didn't think it might be because you're going off in a void over Varda." He eyed me suspiciously.

"Stop squinting," I said. "She doesn't mean a thing to me."

"She'd better not," Shane began, knotting his plucked eyebrows in a frown.

And then Varda, wearing a rich blue cape over her long flowing red tunic, bustled out the door and over to us.

"Let us move quickly," she pleaded. "They've gotten up from their table and are following."

Shane grabbed her arm and pointed down the dim, dirty little street.

"Come on!" he said.

We walked swiftly, all three of us, until we reached the corner at the end of the street. Then, simultaneously, we stopped and faced the direction we'd come from.

The two thugs were out on the sidewalk, following after us!

They stopped, suddenly, and stepped into a doorway. I grunted in satisfaction.

"That's all we want to know. They'll play hide and seek at a distance until they get us where they want us."

Shane, catching my incipient idea, asked,

"Where's the nearest alley?"

Varda pointed a lovely finger across the street.

"There's one right over there," she said.

We crossed the street. "Now we'll pretend to dart down here," I said. We were hidden from sight by now, and had halted. If you've ever been in a Venusian alley, you'll know what I mean when I say we were standing ankle deep in mud slime.

Of course, off duty, we weren't carrying side arms. We had no idea of what the gents following us carried in the way of lethal armaments. But—we'd been like this before.

Shane, standing protectively before the girl, reached into his tunic pocket and pulled out his set of duralloy knuckles. I did the same. We were never totally unprepared when these knucks were at hand.

There was a small areaway behind the place we waited. I grabbed Varda's arm and shoved her back in there.

"Keep you out of trouble," I explained.

WE heard cautious footsteps on the metallic parbulium* sidewalk, less than three yards away. Then, two gray forms stepped into the alley, as Shane and I instantly went into action.

Both space slugs were big. And both

* Parbulium is a metal common to Venus, something like copper. It is found in a raw, spongy state, and when spread on a roadway or walk, and rolled down, forms a satisfactory and durable pavement.—Ed.

were plenty tough. At least mine was. I didn't have any time to see how Shane was doing. I was far too busy with my own scrap.

If they had atomic blasters on their persons, they hadn't been bright enough to have them ready as they stepped into the alley. The big rascal with whom I was tussling had a pair of fists on him like atom drivers, and I was catching plenty from every direction.

The slime in which we wallowed was an advantage I was playing for. I had a handful of the stuff, and as my hulking opponent lurched in at me again, I let him have the sticky ooze right in the eyes.

It was like hitting a blind man—but much more enjoyable. While he staggered around, groping at the goo in his eyes, I gave him my Sunday punch and he went out cold.

I turned, breathing heavily and triumphantly, ready to sail in and give Shane any help that might be needed.

But Shane, arms folded across his chest, was calmly watching the end of my battle. From the inert lump of human anatomy at his feet, I realized that he'd wound up his battle before I'd even started mine.

"A dirty way to win a fight, Corporal Cork," Shane observed disapprovingly.

"You're a chum, all right," I snapped. "How long were you standing by there, watching me tussle with this toughie?"

"Time," said Shane, annoyingly smug, "is a relative thing."

Varda had come from her refuge.

"We must hurry, now," she said. 'There may be others!"

I was still annoyed. I could feel the slime of the alley slogging around in my space boots. An unpleasant sensation.

"Before we go any farther," I said with sudden inspiration, "don't you think we deserve to know what this is all about?"

Varda said hurriedly,

"Please, there will be time enough to tell you later. Now we must hurry."

"But I want to know," I said doggedly.

"Corporal Cork," Shane said, taking my arm and pushing me back to the street sidewalk, "you heard what the young lady said. We have to wait until we're safely away from any other dangers. She'll tell us then, and that should be time enough."

"Time," I snapped, "is a relative thing."

"Where do we go from here?" Shane asked Varda, ignoring my insistence.

"Follow me," the girl said. "It is not so very far."

I grunted disgustedly, and stepped in beside Shane and the girl.

"Let's get this thing over with pretty quickly," I told my chum. "Our liberty will be running out any time now."

VENUSIAN streets are just about the most impossibly twisting, annoyingly complicated avenues of travel I've ever encountered. You can't go more than a mile before you get hopelessly snarled up in a sudden flurry of small canals. Then you have to trace your steps back along the firma you've traveled, and seek another way out of the puzzle.

Varda didn't know her Venus very well. And if the place to which she was taking us was really rather near, she was going by way of Saturn and Jupiter. We must have walked for nearly half an hour.

"When do we arrive?" I complained.

"Don't criticize the girl," Shane said protectively. "She's probably trying to throw other pursuers off the track."

"I'd rather turn and face them than plod around any longer," I declared. "I'm a space ship stroller, not a mud marcher."

The girl had halted before a squat, long, dirty building on the edge of one of the innumerable reeking canals. It looked a great deal like any of the countless parbulium-pavement mills that pock marked the Venusian scenery—except that this was grim and deserted, as if it hadn't seen service in at least ten years.

Now Varda looked cautiously up and down the canal edge. Then she stepped into the shadows of the building, and in another instant had opened a door. She stood there in the light that streamed from the open door.

"Quick, please come inside," she ordered.

"What in the name of all that's interplanetary is this?" I blurted. "It certainly doesn't look like a working girl's home."

But chum Shane had already stepped over the threshold, and from the inside he said,

"Come on, Corporal Cork. Do you want to stand out there all night?"

I shrugged. There was no reasoning with Sergeant Shane when women were present. I stepped into the building, and Varda slammed and bolted the door after me. For a moment I blinked in the bright lights of the huge room. Shane was doing the same.

"All right, you two, don't move!"

The voice, utterly alien, rang out like a shot, and I found something hard and round—the business end of an atomic pistol—pressed hard against my spine. Turning my head slightly, I saw that a dapper, mustached little fellow in a gray tunic had taken chum Shane in hand, and was keeping the nose of another atomic weapon firm against that worthy's back!

"All right, now. Move ahead, slowly, and don't get ideas," the same voice that issued the first command—belonging to the invisible gent prodding me from behind—spoke up again.

"What in the hell is this all about?" I demanded. And now Varda, smiling sweetly, had stepped in front of Shane and me.

"Do as you are told," Varda ordered. "You are both such sweet boys that I'd hate to see you killed. Besides, when we're done with you, the Marine Corps might want you again."

THIS was the last straw to a perfect hayride — to mix a few expressions. We'd walked, no, run, head on into the slickest sort of a trap. But what was it all about? These people, including Varda, were certainly not operating a stick-up racket. If they were, they'd picked pretty poor clients in Shane and myself. Both of us were almost broke by now, and Varda knew it.

Shane was fuming furiously.

"You shing shang, jib jang lot of jeck jicks," he stormed. He was always careful to watch his language in front of ladies. Though by now I scarcely thought it necessary. "What's the meaning of this?"

The mustached captor behind him—he had the dark skin of a Saturnite—pushed the nose of his atomic pistol none too gently into Shane's back.

"Shut up," he ordered. "And keep going."

A possible meaning for all this suddenly hit me. And it didn't cool my rancor against my love-sick Sergeant any. I said what I thought.

"Well, Sarge. It looks as if your conversation of this afternoon has made us both pretty popular." I was sure that he'd spilled some diplomatic beans to Varda in his afternoon's blowing, and that—for want of further information—we'd been tricked into this spot by the girl and her henchmen.

Shane spluttered in my direction.

"You're crazy. I didn't tell her a thing that'd be worth knowing to spies, if that's what you're thinking!"

Another pleasant thought hit me.

"If it makes any difference to you," I told Shane, "I have just remembered that it is past the time when our liberty tickets expire. And—in case you don't realize it—we are not back in our comfy berths as per the Admiral's instructions. We are, to speak facts, Absent Without Leave!"

Shane groaned aloud.

"It was nice being a Corporal," I added. "I hope you had just as much fun from your Sergeant's job. And I trust we will both enjoy the solitary comfort of the brig for the next three months."

Shane groaned dismally again. His stripes meant more to him than his life. So did mine, as a matter of fact.

They halted us, now, at the foot of a winding staircase. What was up there I hadn't any idea, until Varda clarified the situation by saying,

"Up on the roof is our space craft. We know you boys will enjoy the ride we've planned for you."

FROM the looks of the sleek space ship on the roof, we weren't going to take just a casual taxi jaunt to another part of the planet. This baby was built for high speed and lightning travel. And when they pushed us into the cabin, my suspicions of a long journey were further confirmed by a quick glance at the Chart Televizor.*

The chartings on it were for a long trek across the void to an isolated section of tiny asteroids. It was marked for one of these asteroids—obviously our destination!

We stood helpless in the cabin, while I got my first look at the guy who'd been pushing the atomic pistol into my ribs. He was fat, greasy, and sloppy. He wore a tunic of the same gray material as the little guy watching after Shane.

All five of us were in the cabin of the space ship now. And Varda rummaged around in the craft's store locker finally bringing out two long sections of thick Venusian hemp cord.

Then, while the other two held the pistols on us, Varda trussed our hands behind our backs, and securely bound our feet. During the process I looked at Shane with all the scorn I could register and said,

"Is this the little cutie you plucked your eyebrows for?"

The string of interplanetary cussing that followed from Shane's tongue was enough to make a Martian's stringy hair curl.

The big, greasy slob slipped in behind the controls of the ship, and the little mustached fellow sat down near us—we'd been dropped like Christmas packages on the floor — holding both atomic pistols menacingly over our bodies. Varda sat beside the fat slob at the controls.

Then, while the rockets splatted deafeningly as the ship juiced up atomic power, I lay there with my skull on the metal flooring, thinking of the court martial that would greet us if we would ever return from this scrape. I'm sure Shane was thinking of the same thing. Minutes later, we felt full rockets shake the floor, and we zoomed up off into space.

WE must have been an hour or so out in space before I finally felt like talking. I did my speechmaking to the wench, Varda.

* The Chart Televizors are used to map out an interplanetary tour in advance. The screen reproduces the course charted on the Televizor. It stays there as an automatic guide for the duration of the trip, lighting orange every time the ship leaves the course. At the end of the journey its markings are erased by pressing a button. Then another course can be charted.—Ed.

"Now that it doesn't make any difference any longer," I coaxed, "why don't you let us in on all this?"

"For a Marine," Varda said tauntingly over her shoulder, "you are terribly curious."

"This is some sort of a spy racket, isn't it?" I persisted.

"It isn't a kidnaping service," Shane put in sarcastically.

"Corporal Cork is correct in his first assumption," Varda said cheerfully. "This is a spy racket."

I turned my eyes as best I could to Shane.

"Hello, loudmouth," I reminded him. "Any old plans of the Admiral's today?"

"As a matter of fact," Varda put in conversationally, "you are all wrong in assuming that Sergeant Shane told me anything of value this afternoon. However, we will be able to get plenty of valuable information from the two of you concerning other topics of your work."

"You think," I snarled, forgetting my role of pumper.

"We know," Varda corrected us cheerfully. "We are not above a little scientific torture."

"That's no surprise," Shane snapped.

"Would it interest you two bold, brave Space Marines to know that you materially aided us, and hindered your Federation when you beat up those two men who followed me this evening?"

I had almost forgotten the incident, in the ensuing trouble. But something in Varda's tone gave me an awful premonition that all was not too bad to be worse.

"Say that again," I gulped. "And then go on to explain."

"The 'thugs' to whom you administered such a thorough threshing tonight were your Federation's own Secret Service Officers," Varda giggled.

"Federation Secret Service Officers?" Shane and I screamed the words almost simultaneously.

Varda was choking with laughter now.

"Yes. You beat up two of your own Federation's officers!"

Things, in the cold sickness that followed, were not bad any longer. They were quite definitely worse!

"It should be interesting," Varda was giggling, "to see the esteem in which you two masterful Marines will be held, when your Admiral learns what you have done."

I had a mental vision of the Admiral, Old Ironpants, pointing a bony finger at Shane and me and saying,

"Three hundred years in the brig for you boobs!"

"Oooohhh," Shane moaned. "And to think that just a minute ago my only worry was a mere de-ranking and brig sentence for prolonged A.W.O.L.!"

Both the fat slob and the mustached snake were laughing uproariously with Varda at our mental agony—which didn't add to the pleasantness of the journey.

SHANE and I lapsed into a gloomy silence. We didn't want to know any more. We knew too much already. Another half hour passed, and the mustached snake was paying less and less attention to us. It wasn't really necessary to watch us closely anyway, for there was nothing we could do in the way of heroics to aid our situation. Varda had tied us neatly and completely.

During this interval Shane had been twisting uncomfortably every now and then, and I wondered what in the hell this not so spartan display was getting him when I suddenly noticed a tiny metallic gleam beneath the ropes that tied his hands behind his back.

I choked back a gasp as I saw what the tow headed mutt was doing. He had the tweezers he'd hid that afternoon, and was using them to cut through his bonds!

It was slow work, and I found it hard to keep my eyes away from Shane as he painstakingly accomplished it. The mustached snake was too stupid to notice what was going on, or Shane was too clever going about it. At any rate, a wink from my buddy told me at last that he was free, insofar as his arms were concerned.

I edged over close to Shane and somehow managed to take the tweezers from him. Then, sweating star drops, I went to work on my own bonds. After what seemed to be centuries, I had them severed to the point where they'd break with a twist of my wrists.

Working on our leg wrappings was more difficult. And only when the mustached snake's attention strayed away from us, were we able to proceed in loosening them. Fortunately, our legs had been tied in a fashion that pulled them up behind our back. We were able to use our free paws in unknotting them.

We waited our chance, and when the mustached snake stepped up to the pilot's instrument panel, we jumped to our feet with a whoop and a holler. I'd picked out something to grab. A duralloy fire extinguisher. It worked beautifully as I caught the surprised fat slob over the head with it.

Shane had grabbed a planerium grappling iron, and the work he did on the mustached little snake was swift and unpleasant. It was a wonder that the guy was still alive as he lay in a bloody heap on the floor. It had been the little guy who held their guns, and I got the satisfaction of stamping a foot down on Varda's hand when she grabbed for the guns as they hit the floor.

She fought like a wildcat, and by the time I'd subdued her and trussed her up—you can't shoot a wench, at least I can't—Shane had slipped in behind the pilot wheel vacated by the fat slob. I felt like yelling for joy. The tables were now thoroughly turned!

Shane, at the controls, echoed what I was exultantly thinking at that instant.

"Corporal Cork," he shouted happily, "we have not only taken the situation well in hand, but we have vindicated ourselves to boot by the capture of two enemy spies of some sort, plus this wench accomplice of theirs!"

And with this he swung the nose of the space ship around in an arc that almost threw my heart through my boots.

"We're heading back, Corporal. Heading back like the heroes we really are!"

SOME very unladylike language from Varda interrupted him.

"Stuff a gag in her mouth, Corporal Cork," he ordered. "I can't stand such a disillusioning picture of fair womanhood."

"Very well, Sergeant Shane," I answered, happy to oblige. In another minute Varda was thoroughly silenced.

"We will land, in the best Marine tradition, on the runways of the *F.S.S. Western Hemisphere,*" Shane announced. "There we can turn our prisoners over to Old Ironpants personally."

"An excellent idea," I said. And Shane throttled into a full blasting rocket speed. It was well over an hour and a half, but it seemed only seconds later that we were easing down on Venus, while Shane unerringly headed for the runway decks of the *F.S.S. Western Hemisphere.* We had a full turn out on the main deck of the battle wagon when we climbed out of the

space ship dragging our prisoners some ten minutes later.

Old Ironpants, the Admiral himself, resplendent in crimson and gold tunic, met us at the center of the deck. Marines flanked him on either side.

"Throw these men into the brig," were the Admiral's first words. He had a space-weathered hatchet-face which was now wrathful.

I couldn't help grinning at Shane, who grinned back at me, then pointed to the fat slob and the mustached snake whom we'd dropped on the deck.

"These men, Sir," Shane said, making a snappy salute, "are enemy spies. We captured them and an accomplice —a girl who's tied up in the ship—after a tremendous battle and a desperate chase."

This was roughly true. Anyway it sounded fine. I grinned at the Admiral, and imitated Shane's salute. I expected to see Old Ironpants' expression thaw. But I was disappointed.

"I am very well aware, Sergeant Shane," he said testily, "that these men are spies. Our Federation Secret Service has been tailing them for months. They could have apprehended them at any time, had they wanted to."

My stomach started to freeze again, and a stricken expression slipped over Shane's face.

"However," and now the Admiral's voice dripped sarcasm, "we realized they were but pawns working for far more important game than themselves. We wanted to reach their leaders, and so we let them steal some useless papers concerning our battle fleet. In order to frighten the girl—who carried the papers—into going to the main spy base on an undisclosed asteroid, we sent two of our best Secret Service Officers to pretend to harry her."

I gulped dismally. Shane merely stood there, jaw stupidly a-slack.

The Admiral went venomously on.

"We know of the hideout in the old mill, and of the fact that the girl and the two men had a space ship there. We stationed some of our fastest small space craft in the vicinity. Our purpose in this was to follow their ship the moment that they started to flee to their main base."

If there'd been a pin hole in the deck, I'd have slipped through it.

"This," Old Ironpants continued, "would have led us to the very door of the secret base they have on some asteroid. Which was primarily what we wanted."

I looked sheepishly at Shane, who looked sheepishly at the deck.

"However," the Admiral grated sarcastically, "in spite of the fact that you two almost succeeded in murdering our Secret Service Officers in an alley, our ruse was successful. The girl became frightened enough to decide to head back to the asteroid base with the two men."

There was acid in Old Ironpants' voice as he went on.

"Our ships immediately followed at a distance which would permit them to make the journey unobserved. And then, at precisely the most inopportune moment, you two blasted lunatics escape, bash up the spies, and turn the ship around in the opposite direction—completely and quite utterly ruining our one chance of learning the location of that base!"

Old Ironpants turned to the Marines.

"Throw these men in the brig," he demanded for the second time.

"But, Sir!" Shane suddenly snapped to excited action.

"Well?" Old Ironpants glared frostily at him.

"You have the directions to their secret base," Shane almost shouted in his feverish excitement. "Right on

the chart of the Televizor map screen of their ship!"

I felt a wild, vast, sweeping sense of relief. Then the Admiral's testy reply threw me into a slough again.

"You talk like an ass, Sergeant," he snapped. "When you turned the ship back in this direction, you charted a new course—which would completely erase their map charts!"

I felt sick at my stomach. The old man was undeniably right. I tried to vision the rest of my life in the brig. It wasn't pleasant.

"Charted a new course." It was Shane speaking again. "Bah! I learned to pilot a space ship before I could walk. I don't need those new fangled gadgets. I fly by the seat of my pants. You'll find that map on the Televizor Chart still intact!"

"Sergeant," Old Ironpants said, "if you're right, you're a lucky Marine. And you're still Sergeant. But if not—" the implication was ominous.

But of course I remembered Shane was right. And if I hadn't been standing on the deck of a battle wagon, I'd have indulged in the luxury of fainting.

IT WAS WHILE we were writing our reports of the entire affair—the following day—that Sergeant Shane looked up from his laborious notations and said,

"About our escape, Corky," he coughed discreetly, "I don't think we have to mention those tweezers that did the trick."

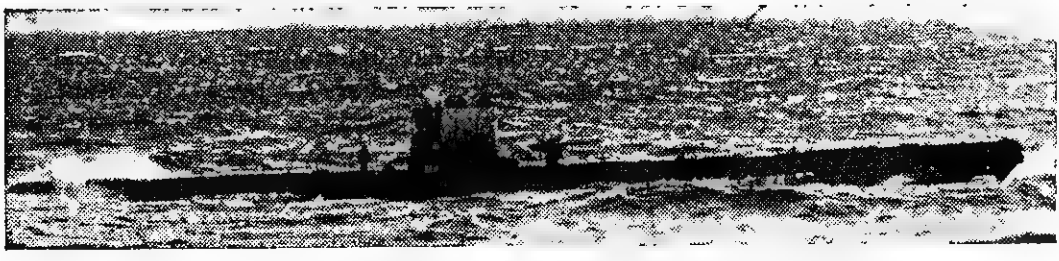
I looked at the lug for a minute.

"No, dearie, there's no sense in mentioning them. I'll carry your shameful secret with me to the grave."

Shane stood up, face red.

"And no cracks, y'unnerstand?" he said, waving a finger under my nose. "No cracks!"

HOW ARE GERMAN POCKET SUBMARINES OPERATING SO FAR FROM THEIR BASES?



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BIG NOVEMBER ISSUE AMAZING STORIES **ON SALE SEPT. 10th**

The OBSERVATORY by THE Editor

(Concluded from page 6)

YOUR editor has a letter from Lynn Bridges, who was quoted in our column last issue in his capacity as columnist for the fan magazine, *Eclipse*, and who was the object of some disagreement by two readers in Discussions. So, to give him his chance to present the other side of the question, we'll quote from his letter.

First, he calls our remarks about *Eclipse* an "attack." Regarding the "news" reported by his magazine, he points out it was an excerpt from another magazine, and therefore, if it was untrue, it wasn't his fault. We agree, and we want to humbly and hopefully point out that we did exactly the same thing, our news item being an excerpt also. And if the excerpt was an attack, we plead not guilty of the same attack.

NOW, about Phil Stong's anthology. We quote Mr. Bridges: "Your boast about three of AMAZING'S stories being used in Phil Stong's anthology would be a bit stronger if more people agreed with your opinion of the book's quality. But they don't, and in a recent contemporary, another editor gave Stong's book a quite thorough roasting."

Have you read the reviews on this book, as they have appeared in the nation's daily newspapers? It is on these reviews, and on the selling power to the general public that a book's popularity is based. We simply ask you to read those reviews.

We have received, among AMAZING'S fan mail contributions, numerous letters, without exception saying each and every story in the book stinks, and is not a true representative of science fiction or fantasy. All of these writers are members of a group called "New Fandom." Yet, in our files, we have letters nominating Stanley G. Weinbaum's story "The Adaptive Ultimate" as one of the ten top stories of the decade. These by the *same* fans. Why the reversal?

NEXT point: The recent science fiction convention in Denver (July 4), held as one of its main points that if anything was to be done about improving science fiction, it was up to the fans to work toward that end by constructive criticism, by aiding in the popularization of science fiction and the gaining of new readers, and in concerted effort along a definite line rather than a pulling in all directions at once, simply for personal and selfish reasons. We are quoting Mr. Evans of your group, who called on us several days after the convention.

WE need only mention one more pertinent fact: Some months ago, the fans moved that the "professional" magazines had no place in their organization, and that therefore, they were disassociating themselves, and becoming an organization that was by, for, and of the fans.

RECENTLY, as a matter of curiosity, we dug out all the fan letters of the past six months, (which means several thousand letters) and made a list of the authors' names. Behind each name we marked a check to indicate the fact that a reader had listed him in a personal list of the five or ten or twenty best authors writing for AMAZING STORIES today. Perhaps you'll be interested to discover which authors we discovered to be the first ten in popularity.

(1), Don Wilcox; (2) William P. McGivern; (3) John York Cabot; (4) Nelson S. Bond; (5) David Wright O'Brien; (6) James Norman; (7) Edgar Rice Burroughs; (8) Robert Moore Williams; (9) David V. Reed; (10) Eando Binder.

Which is something we can't argue about—it's what *you* say, dear reader, and it's a poll that's gospel to us. We don't think we wasted one whole afternoon finding out about *that* list!

IN response to popular demand, we are increasing the number of cartoons in each issue. We will present five or six in each issue from now on. And we invite you all to submit "gags" or cartoon ideas to this editor. We'll buy good ones, and turn them over to cartoonists for finishing. Here's your chance to make a little easy money. And a chance to help make a popular feature of your book even better than before.

With which we'll cast down our pen (and sword) for this issue. Address all bombs to Hitler! *Rap.*

"You mean you're going to kill me?"

FLAME for

Kogar hurled the stone—and there came a sickening, crushing sound
R.Fugua

the FUTURE

by
P. F. COSTELLO

The Leader had a purpose: he was waging war to found a super-race. Why not ask that race to help . . . ?

THE tense whispering in the great hall faded suddenly. The huge double doors of the Council Room swung back and, as one man, the entire assemblage of high ranking soldiers come to their feet, hands outstretched in the traditional salute, carried over from the days of the First Leader.

The Leader strode through their ranks. He was a tall man with heavy broad shoulders and thin, expressionless face. He turned and faced the room. Blue eyes, cold and unmoving, stared impassively over the expectant audience. Light hair, close cropped and straight, pressed tight about his skull like a bronze helmet.

"Soldiers," he began without preliminaries. "I have called you here from all ends of the land and sea to announce that victory, complete and final, will soon be ours. For fifty years the enemy has fought stubbornly and desperately against our strength and might. But now, in the year 1990, they are doomed to the inevitable destruction which is the end of all enemies of our State. For thirty years we have been forced to fight delaying actions in some sectors of the World because we did not have sufficient man power to wage a decisive attack. Now that difficulty has been solved.

"In a very short time we will hurl onto the field of combat thousands, millions of troops vastly superior to any which the world has known. Troops so skilled and ruthless and perfect that even our own excellent divisions could not expect to stand against them."

There was an incredulous gasp from

the large room and the Leader smiled without humor.

"However these new and powerful additions to our forces will be fighting the stubborn enemy and not us, which is fortunate."

A gray-haired Field Marshal rose to his feet and raised his arm in salute.

"My Leader," he said, "how can this be? There are not such troops as you describe in the entire World. With the decrease of the population we will soon be without troops of any sort to wage our just and noble struggle. The enemy is in the same predicament. We are killing each other off faster than we can breed new soldiers."

The Leader leaned forward slightly.

"I have called this meeting to explain exactly how we will solve that very problem. We have dedicated ourselves to the task of creating a super race. There can be no doubt that we will succeed. Think! Centuries from now the glorious civilization which we intend to create will dominate the earth. Our descendants will rule the earth, rule its wealth, rule its people. That is why we are fighting today. For the creation of the super race which will one day be all-powerful, all-conquering, all-mighty.

"Today I am going to explain to you the greatest scientific triumph of my regime. It is something which I have dreamed and planned for years. But first I want to say this to you. You know that in our State we do not allow slackers and shirkers to live. We put them to death the instant we discover them, for we know that all must fight and give their utmost in the crusade we are waging. Now if we are doing that, giving our last drop of blood and sweat to crush our enemies, why should those who will enjoy the benefits of our heroic labors be permitted to shirk their duty?"

For an instant there was dead silence in the room. A silence broken only by the sharp intake of breath as the assembled Chieftains caught the import of the Leader's words.

"They have as much at stake," the Leader continued, "more, in fact, than we ourselves have. Those who will follow us, the super race which will result from the completion of our struggle, they must be made to do their share in the winnings of that struggle. Therefore I have called you here to tell you of my plan."

HE made a slight gesture to an orderly standing next to a square object beside him. The orderly stepped forward and with one gesture whipped the enveloping cover from the object, revealing it as a glistening metal cage, shimmering and strangely unreal.

The gathering of Chieftains moved forward for a better view of this strange creation. It was made roughly like a small cage with two metal seats in the interior and a mass of gadgets and equipment on a dial board before them.

The leader drew himself to his full height and stared truimphantly over the bewildered throng.

"The object before you is a Time Machine," he said with repressed pride. "The result of our ingenuity and skill. With it we will draw new support to our Cause. Two of my most trusted Lieutenants are to travel into the future to enlist the aid of the races which will be created by us. When they are told of our need of them, they will swoop back through the boundless reaches of Time to throw their great skill and power into the fray. With our glorious descendants fighting by the millions alongside us we will not, cannot, fail."

There was a buzzing murmur of ex-

cited voices sweeping through the room and then shouts of praise and joy pouring from their throats. The Leader stood before them, smiling quietly at the fanatical demonstration. At last he raised his hand for silence.

"The Time Machine leaves now!" he announced. At a gesture from him two stalwart, uniformed young men stepped to the machine. "Lieutenant Schmidt and Lieutenant Wolf," he cried fervently, "are doing their Race and their Country and their Cause great and glorious service. They have invented this machine and are prepared to take it into the glorious future which we are creating now. The mighty race which will spring from us will welcome them and honor them and return with them by the thousands to fight with their ancestors."

The two young men saluted, stepped into the machine. A thunderous roar of commendation broke from the audience, crashing between the walls with reverberating echoes.

Once more the Leader raised his hand.

"We salute you Lieutenant Schmidt and Lieutenant Wolf," he said impressively. "Our hearts and our hopes travel with you, wishing for you and for us and for the glorious races we will bring to Earth, success; mighty, magnificent success!"

He dropped his hand and one of the young men in the Time Machine moved a lever slowly to the right. The other, moved an indicator along a row of buttons stamped with units of time. Then he pressed a button. To the accompaniment of roar upon roar of triumph and hysterical encouragement the Time Machine shimmered and twisted slowly. As it turned it gradually disappeared. Bedlam broke loose; even the normally august figure of the Leader pranced in an uncontrolled ecstasy of glee.

"WE have arrived, Lieutenant Schmidt," Lieutenant Wolf, the smaller of the two men, sat quietly. "We are five hundred years into the future. It is our third stop. We tried two centuries, three centuries, four centuries and now five."

"And every time is the same," Lieutenant Schmidt answered dully. "Let us climb out. It can't be any worse."

The two men climbed out of the machine and stared despairingly about at the black and blasted surface of the earth.

"The only people we have seen," Schmidt said bitterly, "were those starving barbarians we saw two hundred years ago. Is it the end of the world? Is this what we are fighting for? To produce this?"

"Watch your tongue," Wolf snapped. "That is treason."

"Treason," Schmidt muttered disgustedly.

Their Time Machine had landed in a slight depression, surrounded on three sides by rough, craggy boulders and blasted rocks. Wolf, staring at one of the slight hills, suddenly grabbed his companion by the arm.

"I saw something move up there," he whispered tensely. He loosened his gun in its holster. "Let us investigate."

Schmidt shrugged and followed him, climbing over the rough brambles and crags that littered the side of the slope.

KOGAR and Merena crouched behind the big black boulder and silently watched the two strange creatures moving across the scarred terrain.

Sharply Kogar drew in his breath and turned his shaggy head to his mate. He licked his lips.

"These creatures live, my Merena."

His small eyes beneath his thick brows went back to their burning contemplation of the figures approaching.

Merena was not quite so coarse featured as Kogar. She had long, tangled black hair that fell almost to her waist. Her nose was not so flat as Kogar's, her lips not so thick. But her black eyes gleamed with the same furious intensity, the same fierce gnawing hunger, as her mate's.

For three star-skies it had been this way. No food. No raw flesh to fill the belly. There had been a small winged sky creature, that last time. Kogar had brought it down with a stone well aimed. But it had been small, too small to satisfy completely the burning hunger that gripped them both. And there had been scant blood to drink.

Merena found it hard to remember that there had once been a few four-footed animals to feast on. They were gone now, along with the last of the winged sky creatures. She swallowed hungrily.

Kogar picked up the sharpened stone by his side. In his great paw he held it ready, his eyes estimating the distance from their boulder to the creatures moving toward them. Too far yet.

It didn't occur to Kogar that these creatures might be even as himself and Merena. Their bodies were covered by strange trappings, their legs encased in odd sheaths. Truly these were not of their kind. Kogar's thick left paw gently stroked the bulging muscle beneath the thick mat of hair on his right arm. No, they were not as Merena and Kogar.

Kogar knew that there were no others such as himself and Merena. Once there had been. But they were gone now—along with the four-footed animals and the sky creatures. They had been few enough to begin with, and their numbers decreased until there were finally but himself and his mate. The others had not been cunning enough to keep their bellies filled, their thirsts quenched.

Still watching the approach of the strange creatures, Kogar thought back to that day in the compounds when the feeble old Chief lay dying. All around them, that day, women and children had lain white and sick and bloated. They were dying too. Kogar had gone to Merena. He had slipped from the compounds with her that night.

"We will leave these weaklings, and go forth to find meat for ourselves," he had told her.

And they had. Scouring far and wide, farther even than the old tribal laws had permitted. Kogar took his mate in search of flesh to sustain life. That had been countless star-skies ago. Kogar could not remember how long. He knew, of course, that the others were dead by now. They had been foolish, and weak.

"See, Kogar," Merena whispered, "the strange creatures halt!"

KOGAR, jolted from his musings, turned his attention back to the strange creatures. They had stopped, several hundred paces away, and were making sounds at each other. They looked like animals quarreling.

For an instant, Kogar looked at the sharpened stone in his big hand. He lifted it once or twice doubtfully. A throw might bring one of them down. But if he missed, it would frighten them away. He wet his thick lips.

Merena put her hand on his arm.

"Wait," she breathed, "do not frighten them."

Kogar nodded. For an instant he considered moving out from behind his hiding place and chasing down after

them. He was fleet of foot. He had trapped the last of the four-footed animals that way. But Kogar realized that he was weaker now and not so swift. Besides, he wasn't certain how swift these strange creatures were in their own right. They might even be like the sky creatures, able to swoop up and away if frightened. Although he saw no signs of wings Kogar couldn't be sure.

Merena touched his arm again.

"They move," she whispered.

The creatures were indeed, moving toward them once more. Kogar wondered if there might not be a watering place nearby, unknown to him, to which they were going. He had found many such watering places by following the animals.

Kogar had a sudden idea. He turned to Merena.

"By that other great rock, over there," he pointed a few hundred feet away to a boulder lying just behind the strange creatures, "you take your place."

Merena looked uncomprehending Kogar picked up the second of his sharpened stones. He handed it to her. He had taught Merena to hurl the sharpened stones with a fair amount of skill and cunning. From short distances—if the targets moved slowly as these did—she was deadly.

"Behind that great rock," Kogar repeated, "you take a place!"

Merena nodded, understanding. She smiled at her mate in open admiration of his superior cunning. Kogar was infinitely pleased by the implied compliment. Merena took the stone and flattened herself out on the ground, preparing to inch along to the other boulder.

"After I throw," Kogar reminded her. "Wait until then."

Stealthily, with the ability of long practice* Merena moved away toward the position her mate had indicated. Kogar watched her progress, aware at the same time that the strange creatures had given them additional advantage by halting again and making angry sounds at each other.

Almost at the same time that the strange creatures resumed their movement toward his boulder, Kogar saw Merena gain the shelter of the other great rock a hundred feet behind them.

ONE of the strange creatures as it moved closer, brought forth a stick from its chest and put it in its mouth. Kogar frowned bewilderedly at this. Then the same strange creature produced a glittering thing and held it up to the stick.

The glittering thing puffed a tiny spurt of orange, then the stick smoked odd blue clouds. The tiny spurt of orange had disappeared now, and the creature put the glittering thing away. But the stick still made small blue clouds. And the blue clouds issued

* Science has many instances on record of human beings, who, when placed in a savage environment, developed the faculties of the beast to a high degree. The ability to stalk a quarry, to move noiselessly, and to remain hidden from the eyes of an intended victim, is thought by some scientists to be an ingrained heredity, handed down to man by his ancestral past, when he was in the process of evolving from the actual beast, to the true man. But other scientists deny this, and insist that it is environment alone that makes a man develop animalistic abilities. In this story we have an interesting commentary on this scientific conception. Here, the author's characters, placed by a terrible, civilization wrecking war in a very primitive environment, forced to use mind, muscle, and stealthy cunning to procure food and to satisfy the most powerful of all urges, hunger, have slipped back in a few years to an animalistic plane that is actually not any different from that of the dawn man himself. Kogar and Merena are the products of our own civilization—yet, after the greatest of all wars, they become savages on a swift swoop back through time. Are we really as civilized as we think we are? And are we really as savage as we ever were in the past? Are men like Hitler really throwbacks?—Ed.

from the mouth of the creature as well.

Kogar shook his head, bewildered. Indeed these were oddly different animals.

Suddenly the creatures were close enough for Kogar to hear the sounds they made. Weird, unintelligible sounds.

"I'm for going back, Wolf!" one creature said. Or, at least that was the way the strange noises sounded to Kogar. His thick brows knit uncomprehendingly at these strange noises. They were communicating, of course, just as dogs communicate by whining, or birds by chirping. Nevertheless, it made Kogar uneasy.

Kogar growled softly in his throat. They were close enough now.

His eyes measuring the distance with deadly certainty, Kogar lifted the sharpened stone again, bringing it back behind his head, his muscles tightening like steel webbing.

Kogar was counting on surprise to hold them motionless long enough to hurl the stone. With most animals it worked that way.

Now, suddenly, thick lips flattened against his teeth in a snarl, Kogar rose from behind the boulder. So intent were the strange creatures that for an instant they didn't see him. And in that instant Kogar hurled the stone with terrible force.

It caught one of the strange creatures squarely between the eyes, and from the sound it made, Kogar knew he'd crushed in its skull. Red, warm, delicious blood spurted forth from the wound as the creature toppled over dead.

Kogar yelled wildly now, and it had the frightening effect he wanted.

The other creature—the one with the stick in its mouth—was momentarily rooted with terror as it watched its companion fall. Then, on Kogar's shrill whoop, it suddenly turned—the cloud stick falling to the ground—and dashed madly in the opposite direction, straight toward the boulder behind which Merena waited.

The creature was less than five paces from Merena's boulder, when she rose, whooping just as Kogar had, but more shrilly.

The effect of this was just as the cunning Kogar had planned. The creature halted abruptly in terror, and in that split second, while it turned its head right and left seeking escape, Merena threw her pointed stone with incredible force and magnificent accuracy.

Kogar was forced to grunt in admiration at Merena's skill, as the second strange creature shrieked once and fell to the ground. Blood gushed from its head, just as it had from the other.

KOGAR and Merena dragged the bodies of the two slain animals together, then, and with fierce exultation began to tear ravenously. This was flesh, warm and fine.

But the creatures were indeed strange. They had shells of dry flesh covering their bodies. Bloodless flesh, so it seemed. But these shells came away readily. Kogar examined them as they stripped them off.

The shells were the odd coverings Kogar had noticed at first. And they had many pouches. It was in one of these pouches, that Merena found the glittering thing that had puffed orange spurts.

The glittering thing lay in the same pouch as a packet of the cloud sticks. While Merena munched on the cloud sticks dubiously, Kogar toyed with the glittering thing. Suddenly it spurted orange. Kogar noted with astonishment that the orange held heat.

Gingerly, Kogar touched his finger to the orange heat, and brought it away with a sharp growl. He had never been

burned before.

Merena dropped the packet of cloud sticks and came beside him.

"What is this orange god?" she asked.

Kogar shook his head.

"It brings warmth. But I do not dare to touch it again."

Merena frowned.

"I remember," she said, " a legend told to me about an orange god when I was a child in the compounds. It is a very old legend." She turned away, walking to a pile of brush a few yards distant.

Returning with the brush, Merena placed it on the ground.

"Now," she said. "Touch the orange god to this."

Kogar obeyed. Flames crackled as a small fire grew. The two stood back, awed.

"It brings great warmth," Kogar said, pleased.

Merena nodded.

"Over it we can warm the flesh of our kill," she said. "We must never let this orange god die."

Kogar turned the glittering object over in his hand. It stopped spurting orange. But there was still the fire at their feet. There was something cut into the side of the glittering object. And looking at it, Kogar failed to understand what the strange symbols meant.

"To Schmidt," they read, "From the Leader. To mark loyalty and devotion in our Cause. And to bind our future, greater Civilization."

Kogar shook his head bewilderedly. Then turned to Merena. The warmth from the orange god at their feet was incredibly pleasant. Kogar said,

"You are right. We must never let this die."

"IT'S A BET!" SAYS TINK!

Tinkie and Nastee were peculiar little chaps! Any Irishman can tell you all about them. They were leprechauns—little goblins—only a couple of inches high. Tinkie's job was to make people happy, and Nastee's was to make them miserable. So when Nastee challenged Tinkie to a duel—they picked a victim and went to work on him . . . and how! Even if you aren't Irish, don't miss an Irishman's best short story—"TINK TAKES A HAND" . . . by William P. McGivern . . . One of the six topnotch fantasy stories in the big October issue of

fantastic ADVENTURES

OCTOBER ISSUE ON SALE AT ALL NEWSSTANDS AUGUST 20th !

A scream of agony shattered the stillness of the giant cavern

MYSTERY of the MARTIAN PENDULUM

At the heart of Mars a great pendulum swung, ticking out an inexorable doom to Earthmen!

by THORNTON AYRE and A. R. STEBER

"HOW far down in this damned planet do you think the stuff might be, Cliff?"

Val Morrison asked the question. He sat folded up outside the tent wall, short pipe crackling between his big teeth. Six feet four, thin as a knife-blade, with a face like a pickaxe, he was possibly the toughest man in the whole outfit. He sat regarding Cliff Anderson now through his tiny, merry little dark eyes.

"Lord knows!" The chief engineer rubbed his big, stubby chin. "Doesn't matter much, anyway; these Martian guys who went before us did a whole lot of chiseling. We're down two thousand miles already—but no sign of *anilum* so far. Soon we'll hit Mars' core. Mebbe we'll find something before then."

"Yeah—we hope . . ." Val drew at his pipe dubiously.

The sudden blare of signal sirens came from the depths. The whining din echoed through the reaches of the tunnels and shafts. The voices of the men at the head of the main shaft came forth in a murmur of sound.

Immediately Cliff and Val were on their feet, glancing at each other.

"Guess they must have hit something vital," Val said briefly.

He started to move forward as he spoke, Cliff beside him. At the pit top Cliff elbowed his way through the men.

"What's wrong below? What's happened?"

The radio operator in contact with below glanced up.

"Number 4 unit operating in underground cavern has encountered a steel wall, sir. Want your advice . . ."

"Steel wall? Down there!" Cliff looked his amazement. "But how the devil did—"

"Oh be damned to conjectures; let's go," Val snapped, and strode forward into the waiting shaft cage. He waited until Cliff had joined him, then threw in the switches.

For several minutes they dropped steadily down through the miles of shafting thrust deep into the planet's bowels. At last they touched bottom, flung back the grille, then hurried over to the group of engineers gathered round their enormous boring machine. It had stopped before a massive rotunda of gray metal stretching up into the cavern ceiling and on either side as far as the eye could see.

Richardson, the engineer in charge, nodded to the barrier as Cliff came up.

"Thought it was *anilum* at first, Cliff, but our tests show it is steel of sorts. All in one piece; been flowed together by some skilled process. No sign of a join. Thought you'd better see it before we tried blasting it through. Might be something dangerous on the other side."

Cliff surveyed it keenly. "Such as?"

"You never know. Maybe molten lava: even conserved water supplies. Might be anything. The Martians sure didn't mean it escaping whatever it is . . ."

Val drew at his noisy pipe. "Might even be Martian life behind it," he murmured. "I'm not fooling," he went on, seeing Cliff's doubting look. "After all, I figure the Martians must have gone somewhere, and we've seen no trace of life in the upper or surface regions since we landed on this hell-fired planet."

Cliff tugged out his ray gun and fired it experimentally at the barrier. The metal sizzled and liquefied under the heat. He nodded curtly.

"O.K., start blasting it through. But take it easy and use a small radius. If there's anything dangerous released we'll have time to get clear anyway."

The big engineer gave the order. With Val beside him, Cliff mounted to the borer's flat deck and stood among the crew. In the belly of the ship's control room the men set about their tasks. The powerful tractors moved. A needle-pointed spear of incandescent heat stabbed the barrier and began to drive through it like a white-hot needle through a slab of butter. The air began to reek of heated metals and electric discharges.

At the end of a half-hour the reaction instruments showed the boring was finished. Immediately cooling radiations were forced through the barrier and searchlights were swung onto the foot-wide hole.

Staring into it the engineers could see nothing but darkness.

"There's air anyway," Val said, frowning. "Distinct draft blowing through."

"That might be the air blowing right through the planet from the other side,"

**Anilum* is a metal which makes tungsten look like putty in comparison. Fredison, the space explorer, first discovered the stuff on Mars. Due to its extreme value, the United States sent Cliff Anderson to discover the mother lode if at all possible.—Ed.

Cliff mused. "Doesn't seem attenuated enough though . . ."

He shrugged and turned to the borers.

"All right; finish the job," he said. "Use full range this time and plow right through."

THIS time the beam incorporated an area wide enough to permit of the entire borer machine following it through. As before it took it thirty minutes to nose its juggernaut way through the wall, which was all of twenty-five to thirty feet in thickness. Once beyond the barrier engineers stood sniffing the stale, musty air and gazing round in the glare of the searchlights.

They were within a colossal artificially bored cavern, filled with an extraordinary number of gray metal balls dotted about in various directions. Some were large and some small, but all were bolted and riveted immovably to tripod stands of metal. Right and left they went, round the natural curve of the cavern out of sight. In the cavern's center was yet another ball of metal, gray like the smaller balls, and apparently a kind of master ball. The distance to the major ball was perhaps two miles. How far the cavern itself really extended was lost in darkness.

The air seemed to be coming from a source in the cavern hidden by the major ball.

Cliff climbed down from the borer and went to the nearest ball, stood looking at it perplexedly. At last he turned to the others and held up his hand for silence.

In a moment it was clear that the little ball was whirring mysteriously like a spring uncoiling.

"Machinery!" Richardson ejaculated.

Silence fell on the party again as there came a new sound through the heavy silence—a solemn, deliberate ticking like that of a giant grandfather clock.

It went on steadily and Cliff consulted his watch.

"Something is ticking at exactly three second intervals," he proclaimed finally. "And it has only just started. . . . Looks like we have stumbled onto something, boys."

Val said slowly, "The ticking comes from that giant ball there. Let's take a look at it."

They mounted the borer again and drove forward the intervening distance. The progress of the journey made the ticking all the more audible, until by the time they had reached the giant ball itself it was a solemn reverberation that boomed along the floor.

Tick . . . Tock. Tick . . . Tock.

"Time bomb?" Vale suggested laconically.

"Quit clowning," Cliff snapped impatiently. "It's pretty plain we started the works going by coming in here. Nothing happened until we went over to look at that smaller ball. Somehow I don't like it. There's a deliberation about that ticking that's kind of ominous."

"Yeah . . ." Val meditated. He said, "Suppose before we start forming opinions we look around a bit? This air mystery, for instance . . ."

CHAPTER II

Invisible Enemy

AT the rear of the giant ball they discovered the reason for the air supply and its un-Martian density. A titanic vent sunken into the floor, and presumably communicating by a complicated shafting system to the other side of Mars itself—right through to the surface—was covered with a massive

lid of machinery, the unit itself being housed inside a transparent case. The components were working visibly in the midst of a mass of thin gluey substance.

As the thin air streamed up the giant shaft it passed into one giant valve in the machinery, went through an amplifying process by which heavier air pressure was added, and was then expelled by a piston system at the other side of the machine, a massive pipe being driven through the tough outer casing. The thing was virtually the mechanical heart of Mars pumping out good air from thin, spent currents.

"The Martians were damn good engineers, anyway," Val commented. "But just why did they need to give air to this cavern in particular when there is only a lot of balls in it that don't need air to work in . . . ?"

"Unless," Cliff mused, "they wanted intelligent life to come into this cavern and have a look round in order to start the machinery going. The air would invite anybody inside—as it did us. I'll bet, when we broke through the wall, we completed a circuit that started the air pump working."

Val's pipe crackled. "Say, maybe you've got something. Anyway, we can check up on that by examining the wall later. What we've got to do right now is find out what makes these balls tick."

He tugged out his gun and fired it experimentally at a corner of the heart's transparent casing. The beam simply glanced off. Val stared blankly.

"By all the saints, it's *anilum!*" he gasped. "Moulded *anilum,* at that. Ray guns will never penetrate this! It takes a temperature of something like 15,000° C. to melt it.

"Everything in this cave's made of *anilum,*" said Cliff.

THE engineers glanced at each other, then with one accord they looked at the monster ball. Within it something was still ticking solemnly at regular three-second intervals.

"Say, something's just occurred to me," Val said presently. "Is it possible that we're right at the core of Mars and that this giant metal ball is *natural?* Or at least it was natural until it changed into unthinkably hard *anilum.**

"So what?" Cliff's brows were knitted.

"If the Martian engineers found a way to hollow out its center, which is quite conceivable, they might have put something inside it. From the stuff out of the center they manufactured all these other little balls. We'd probably find by mathematics that the material used in these little balls equals the extracted mass from inside the larger one. In plain words, pressure changed nickle iron into *anilum,* but Martian science was clever enough to enable the Martians to find out how to bore through it and hollow it out. The seam of *anilum* which Fredison found seems to show that that seam was ejected volcanically, proving conclusively that it *was* from the bowels of Mars."

"Which might explain why we can't find *anilum* on Earth," Cliff mused. "So far our Earth has not ejected any of its deep baser material; only the upper molten metals. Deep down there *will* be *anilum,* but we shall never find it until Earth is as riddled with passages to its core as Mars now is. Yes, Val, I think you've got something . . . But I'll be damned if I understand the Mar-

*Every planet has a ball of metal in its center under terrific pressure—nickle iron center. In a normal planet like Earth it is a liquid solid—a paradoxical way of showing what pressure can do with a solid. But in a world like Mars, or the Moon, where the rest of the planet is practically dead and shrunken, the pressure round the center has relaxed, it might leave a solid ball of metal, which because *of* that pressure might become *anilum.*—Ed.

tian purpose."

The puzzled silence that fell on the group was broken suddenly by a hoarse scream from Richardson. He had wandered from the others to inspect the next steel ball. Simultaneously with his scream everybody present saw a light wink momentarily with blinding brilliance high up in the lofty ceiling of the chasm. Richardson, dead in line with it, collapsed his length on the cavern floor.

"My God!" Cliff ejaculated, startled —then he rushed forward with the others beside him.

That they were too late was obvious the moment they turned the engineer over. His face was charred to ashes, the upper part of his neck and chest were burned away horribly.

Cliff raised a grim face and stared round on the now inscrutable roof and its galleries of rock and pumice stone.

"Something mechanical that killed him," he whispered, standing up again. "Boys, we're facing something deadly around here. It's got to be located . . ."

He stood watching bitterly as the unfortunate Richardson was carried to the borer. The solemn ticking of the giant ball followed the stunned party.

ONCE back at the upper levels in the base camp Cliff summoned his engineering chiefs from their different tasks and put the position to them.

". . . and so we face a mystery," he concluded. "Down there in the core of Mars is a mechanical system of destruction controlled by God knows what. It's taken Richardson. We know neither the extent nor the nature of the thing we're fighting—but we do know that we are going to stop it. We've found *anilum* too, though not exactly in the way we had hoped. That makes searching in other parts of this planet unnecessary. What you have got to do is get every available flame gun machine and transport it down to the lower cavern. We're going to try and liquefy those *anilum* balls, and the big one which ticks. We have one or two portable furnaces and since the balls are on tripods we can shove the furnaces under them.

"You, Townshend, are our chief scientist." Cliff looked at the squat, broad-shouldered man standing before him. "You'll go to work to try and figure out why those balls tick, and what they are supposed to be. It won't be easy, and you may never solve the mystery—but there's no harm in trying."

"I've got the instruments; maybe I'll find something." Townshend nodded his gray head.

"We others will go to work to find out exactly what it was that struck Richardson down," Cliff concluded grimly. "Sparks, you stay here in case we have to radio to Earth for help."

He turned to the door of the base with the others beside him. Then they paused and glanced at each other quickly at a sudden alien sound. It was a noise such as they had never heard before on Mars, a noise other than that of their own work.

From remote distances came clanging concussions, the rattle of metal flanges slamming against each other and followed by the sharper note of locks snapping into position. Four times it was repeated. Twice from high over their heads and twice from below their feet. Then all was quiet again.

"You know something," Val said in the ensuing calm, "I dare to think that that was the locks to the outer surface closing! There are four of them you know . . ."

Puzzled, loath to believe the startling possibility of Val's assertion, Cliff led the way to the shaft cage. Once the men were gathered—fifty in all—the

descent began. Ten minutes later the entire party was back in the cavern.

The searchlights on the borer were switched on and Cliff gave brief instructions. Then while three men remained to watch the searchlights and guide them according to orders, the others went to work to examine the rocky walls of the place inch by inch. Ladders were set up against the approximate spot where the light had burned out Richardson's life.

Val and Cliff chose this particular task as their own especial duty. It took them some fifteen minutes of searching to discover a ball of *anilum*, only a small one, imbedded in the rock. In the center of the ball was curiously faceted lens.

"Looks like a glorified limelight," Val said, scratching his head. "Not a chance of moving it. Only thing to do is to avoid it."

"Yeah, I guess you're right—"

Cliff broke off with a start and turned round with dangerous speed on the ladder at a sudden wild scream from the opposite side of the cavern. He and Val were just in time to see part of the floor crack suddenly up the center in so neat a chasm that it was obviously mechanical. The floor simply fell apart in one complete seam—but into it dropped nearly thirty of the workers gathered in a bunch to inspect the giant ball. Their screams, mingled with the grinding roar of the floor's parting, filled the giant cavern with hideous commotion.

Cliff started to say something, then changed his mind. He scrambled down the ladder at top speed with Val tumbling after him. With the other workmen and scattered engineers they raced across in long leaps to the opening - but before they reached it it began to close with invincible power like the jaws of a mammoth press. The agonized cries from below lapsed abruptly into silence. With a mighty clang the metal floor linked up again, leaving a line so thin it was almost indetectable.

Cliff wiped his sweating face and looked around in bewilderment on his comrades' horrified faces.

"I don't begin to understand it," he almost whispered. "This is unthinkable! Ghastly! Thirty of them trapped down there and then crushed to death. . . . We've got to stop this if it's the last thing we ever do! You realize that, all of you?" he nearly shouted.

"Yeah, sure. Take it easy. It wasn't your fault." Val's voice was gruff with sympathy.

"Not my fault, perhaps, but I'm head of the Expedition and responsible for everybody here. Try to think how I feel . . ." Cliff knelt down and stared at the closed jaws of the floor. He got up with a hopeless look in his eyes. "No possible chance of doing anything until we smash open these damned *anilum* balls!" he blazed. "Get dynamite, titanite, every damn thing! We'll blast this cavern wide open if we go to hell with it!"

Cliff twisted round sharply as Benson shouted hoarsely, "The air conditioning machine has stopped!"

"We've got our portable unit," Val said, relighting his pipe with feigned calmness. No time now to let panic gain a foothold. "Better get it, just in case we have trouble getting free."

Benson departed, and with him the men who were to bring the explosives. Cliff paced up and down swiftly, impatiently, watched by the other engineers. Most of them turned to look presently at the crack in the floor which had so ruthlessly swallowed up most of the party. They glanced uncertainly, furtively, around them, conscious of unseen but diabolical forces waiting to swallow them.

Suddenly Townshend said, "Say, we might get to know what's in these little balls—and the big one too for that matter -by X-ray. If it will penetrate *anilum,* and there's no reason why not, we might be able to get a photograph of what's going on. Guess I'll go to work on that angle."

He departed actively, but in two minutes he returned suddenly. His face, usually so ruddy, had gone pale.

"Come and take a look . . ," he whispered.

CHAPTER III

More Death Traps

AT the words Cliff stopped pacing and raised a haggard face. He moved immediately with the others at his side. Outside the cavern entrance leading to the elevator shaft they stopped appalled. The workmen who had left, and Benson, were lying stretched motionless in a jumble of human figures not ten yards from the elevator.

His heart pounding, Cliff went warily forward in case the same fate overtook him. Nothing happened, however . . .

He needed only to look at Benson's ashy, contorted visage to know the condition of the others. They were dead, every man of them. Cliff turned bitter eyes up to the walls and ceilings, and though he could see nothing unusual he could guess the cause of the annihilation. From somewhere a clockwork sniping ray had done its deadly work.*

"We'll go up and fetch the explosives down for ourselves," he stated quietly. "Only way to be rid of the bodies is to incinerate them. Seems brutal, but there's no time for sentiment . . . We'll be next if we don't act fast. Let's go."

The six of them, all that remained except the radio operator above, moved charily toward the elevator and clambered inside. Cliff threw the switches, then as the cage began to rise, he gave a sudden shout. A blinding ray winked momentarily from the opposite wall of the cavern. A resonant twang caused him to glance up just in time to see the steel hawser split through four of its six strands.

"Look out!" he yelled hoarsely, and jammed the switch out of contact. The next instant the remaining strands parted and the cage dropped down the hundred foot length to the floor. Thanks to the lesser gravity the impact was lessened slightly, but just the same it was mighty enough to smash the bottom of the cage through.

Edwards and Saunders vanished in a smother of splintering timber and crumbling elevator walls. Cliff found himself thrown clear with Val on top of him. Townshend, Morton, and Gilby scrambled out with nothing worse than cuts and bruises.

Immediately they turned to help their buried colleagues, hurling aside timber and metal supports. Half way through the task Cliff called a halt.

"No use, boys; we're only wasting time. Take a look . . ."

He indicated the two hands unearthed from the wreckage. There were no indications of pulse beats on either wrist.

Cliff switched on his wrist radio and hooked the tiny phone in his ear. He half expected a dead silence from Sparks as he gave the call signal, but Sparks' voice answered at once.

*It is evident that in different parts of this underworld there were switches which, either when blocked by photoelectric cell system or else when trodden on, completed a circuit which hit directly on the person or object causing the circuit, just as antiaircraft guns automatically sight and hit an enemy plane. As regards the elevator, Benson and his men obviously completed another circuit with their deaths which was intercepted in the elevator. A system of progressive circuits, each one causing more to come into operation—Ed.

"What happened, Cliff? Cage give way? I was just figuring out what to do . . ."

"Only one thing you can do right now and that's drop a rope. And hurry!"

"O.K. Hang on; I'll fix a winch. And when you come up I've some news that'll interest you."

Cliff switched off.

"It's suicide!" Val protested. "If we cross the same point in the shaft again how do we know we won't be wiped out?"

Cliff shrugged. "Have to chance it. We can't stick here. If it took a whole cage to block the ray it's possible a small thing like a human body might get past without intercepting it."

IN a few minutes a cradle and rope came down the vast length of the shaft.

"I'll go first," Cliff said, slipping into the cradle. "If anything goes wrong, prepare to catch me!"

He gave two tugs and hung on tightly as the cradle began to rise. Nothing untoward happened. He sailed swiftly up past the danger point -higher and higher to the topmost levels. Sparks joined him anxiously at the winch top.

"How many others down there, Cliff?" he asked anxiously.

"Four," he answered with grim significance.

"The others coming up later, I suppose?"

"I only wish they were," Cliff muttered, and seeing the operator's amazed look he went on, "They're dead, Sparks —killed by mystic powers down in the bowels of this ungodly world. Tell you more afterwards. Get the others up first . . ."

Three times more the cradle was lowered, and Townshend, Val, and Morton arrived safely. But the fourth time there was a sudden ominous slackness in the rope followed by a desperate scream from far down in the depths. There came the thump of a body falling back on the ruin of timber. Cliff gave a frantic order and the winch screamed round its drum as the rope was whirled up. The end was smoking ominously.

"It got him," Cliff whispered. "We others avoided it, but Gilby must have been swinging from side to side and intercepted the beam . . . Hey, Gilby!" he yelled hoarsely. "Gilby! You there?"

There was no answer from the depths. Val reached out and tied the rope round his waist. "I'll go see . . ." he announced briefly, and before Cliff could say anything he nodded to Sparks who threw the switches that sent him into the depths.

There was an interval of five minutes in which the party waited anxiously, then came two tugs on the rope. Very slowly, due to extra weight, the winch began to turn. Val emerged with the blood spattered but still living figure of Gilby in his arms.

Gently Val laid him on the floor, turned his head for the emergency kit —but Gilby called him back weakly.

"No use doing that, Val," he whispered. "I'm—I'm sunk . . . But I guess I can tell you one thing. I—I saw where the electric eye lens is hidden . . . Behind a V-shaped chunk of rock . . . You—you'll find it. You can avoid it then. I—"

He fell back gently, became still.

The long succession of shocks had left the remaining engineers incapable of further emotions of pity. They could feel the same net of death tightening around them.

"We'll bury him—over there," Cliff said quietly. "The others we'll have to cremate . . . At least we know where the electric eye is and can dodge it even if we can't destroy it—"

"Death traps!" muttered Val. "What *is* the reason for all this murdering?"

It was Townshend who answered. "Doesn't it begin to become evident that all this is a brilliant posthumous scientific trap built by a dying race for a definite reason? Maybe there's not so much mystery about it at all. All the other planets, as we well know now, are barren. If any living beings came here they'd *have* to be Earth people—and the chance of beings coming from systems way out among the stars is totally unlikely. Yes, it had to be Earth people—and when they had become clever enough to get here it meant they had an advanced civilization."

"What are you driving at?" demanded Cliff.

"Just this. No race as advanced as the Martians must have been to build this complex machinery would be petty enough or impractical enough to plan a mere death trap to operate after their demise. They had a specific and vastly important reason. Maybe this is all a test. A trap like this would eliminate an intruder not sufficiently advanced to measure up to the mysterious Martian purpose. Somehow that purpose is connected with that giant ticking ball down below."

"Sense in that," Cliff admitted, and added wryly. "If you're right, it looks as if we don't measure up to Martian standards. So far we've qualified only for the elimination class."

"Right," agreed Val. "We've got to solve the purpose behind that tick-tocking ball."

"In the meantime, Sparks, radio to Earth. Tell them to send blast furnaces and to try and unlock the surface valves. We'll bury Gilby and get to work below with the x-ray machines and flame gun batteries. We've little manpower now, and we've got to act fast. Let's get started—"

He halted abruptly as he saw Sparks was trying to interrupt him.

"What's the matter?"

"That's the news I was trying to tell you I have," Sparks said. "We can't radio. The batteries are dead. Some sort of radiation has burned them all out!"

CHAPTER IV

The Pendulum

ONCE Gilby was buried and a short service recited over his grave, the five returned to the depths, lowering their equipment down the shaft so that it missed the photoelectric eye. They reached below in safety, Sparks leaving his useless radio to help.

"You get to work on the smaller balls with the batteries and furnaces; I'll x-ray the big one," Townshend said, and immediately set about the erection of his equipment.

The next two hours were filled with intense activity for all of them, but as far as the flame gun batteries went they had no effect. The balls refused to melt. Even the limited furnaces at their disposal only warmed them.

On the other hand Townshend met with success and pointed to the ciné x-ray screen triumphantly. The rays, passing through the globe, gave a hazy shadowgraph moving picture of what was going on inside. In amazement the others stared on the multitude of black-outlined machinery, intersected cog upon cog, linking up with whole masses of complex mechanism and dominated by a mighty pendulum swinging deliberately to and fro.

"What the devil is it?" demanded Cliff blankly.

Townshend regarded it thoughtfully.

"So far as I can tell it is a cosmic clock—about one of the cleverest ideas

I have ever seen. You have seen those clocks on Earth which work by the action of light photons? Well, this is a similar idea but embodying a different principle. This clock is definitely the brain of all these other balls. It works, I imagine, by the action of cosmic rays passing through the planet. Can't give you every detail right now; I'll have to get my instruments to work and see what they can analyze of the forces inside the globe."

"I have the uneasy feeling that it resembles a time bomb," muttered Val, staring at it. "It started to tick when we broke a circuit. How do we know but what at a given hour the whole thing will explode?"

"We don't," Townshend said grimly. "That's what I want to find out. If x-rays pass through the globe, so will others capable of analysis. You'd better set about helping me."

IMMEDIATELY there were further journeys to the surface and one by one detector instruments were carefully lowered, together with adding machines, automatic analyzers, and dozens of smaller attachments necessary to a complete survey. Townshend worked steadily, tireless and grim, checking and computing, apparently heedless of the rather distracting ominous beating of the mighty pendulum.

"I think," Townshend said finally, glancing up with a strained face, "at the present moment this giant ball is establishing an electromagnetic contact with Earth's center."

"What!"

Townshend pored over the instruments and notes again, waved an impatient hand.

"Leave me alone for a while; I want to be sure about this. We're heading for something mighty tough if you ask me."

There was nothing the other engineers could do but pace around until they decided to utilize their enforced idleness by cremating the bodies round the elevator base. Once it was done they stood for a while with heads bowed amidst the smoke of the gun discharges, then they returned quietly to the ball room. Townshend greeted them with a shout.

"Boys, we've got to stop this damn thing somehow! We've eighteen hours to do it in—no more! If we don't manage it the Earth will be pretty near blown in pieces by volcanic fires, earthquake, and God knows what else. Listen here!"

He went on tensely,

"Between worlds there is a common affinity—a bond of gravitation which centers in the nickel iron core based on each planet, large or small. An electromagnetic beam between worlds is bound to center on the exact center of each world. From here, the core of Mars, an electromagnetic beam is already being generated by the mechanism inside this ball. It has crossed the gap to Earth and automatically centers on the gravitative core of Earth. Earth and Mars are now chained by an invisible but unimaginably strong tunnel, its walls being forced, its apparently empty center being a path down which radiations can pass. Clear so far?"

"Go on," Cliff invited grimly.

"These instruments prove there is a potential force inside this globe of something like one million billion volts of energy, all of which will be released in one unthinkably terrible battering ram of force when the escape mechanism operates.

"Now, a force of that kind hurled through the electromagnetic beam—tube—and striking the magnetic center of Earth will create terrific havoc. The impact alone will be bad enough, but

not half so bad as the abrupt dissemination of energy through all Earth's metallic seams. The forces of unleashed lightning will be conducted to the surface through numberless veins of metal. Metal will become electrified; in parts seams will explode to allow volcanic forces to shatter forth.

"You can picture the rest. If there are any survivors from electric shock and other catastrophes I'll be surprised."

"Just how is this incredible voltage built up?" Val demanded.

"It's been built up ever since the Martians died or vacated the planet."

Townshend pointed to various points on the x-ray screen.

"Here is the central mechanism. It is consistently absorbing the electric charges of the planet itself, which it generates by its spin against the ether in dynamolike fashion. It's been doing it for untold ages. A colossal potential power has been building up all this time.

"Part of it has passed into these other smaller balls by means of deeply sunk underground wires I imagine, which we can't reach, or to hidden mechanisms such as the one which opened the floor trap. That power has partly expended itself, but the main bulk is conserved for outlet against the Earth. It is so well balanced a unit that it remains fixed at this potential and transmits surplus and overload automatically—so had we not come here for another five centuries it would have made no difference.

"Here," Townshend concluded grimly, "is the escape mechanism. It releases the potential through the ether shaft. Take a look at it and count the beats of the pendulum!"

THE engineers surveyed their watches then glanced at the shadowed machine Townshend had indicated. There was no doubt about it. After every beat of the pendulum a tiny minute hand jerked up a slight degree, bringing it very gradually round to a giant hand fixed in the noon position of an Earth clock.

"See?" Townshend demanded. "Six hours have elapsed since this damned thing started. The numerical order of the clock is pretty similar to our own reckonings. That giant hand points to the twenty-four mark. Now, when the little hand is parallel with it it stands to reason that it will operate this catch on the left here, which you already see is slightly away from its fixture. It widens very gradually until, when the two fingers lie atop each other, the catch will be fully back and. . . ." He stopped, having no need to detail.

"Eighteen hours," Val whispered, plugging his pipe. "That's kind of short notice. . . ."

"We've got to try something!" Cliff said hoarsely. "We've got to get through this ball, even if it's only an inch at a time. We'll try blasting too. Morton, you, Sparks, get all the titanite you can lay your hands on and rush it down here. You others help me with the furnaces and batteries. . . ."

CHAPTER V

A Race Against Disaster

SUDDEN and tremendous activity descended on the cavern. Working at top speed, Cliff, Val and Townshend set up the ray-drillers in v-formation, ten all told, and centered them so that their blinding forces pointed directly on one focal point. They donned dark glasses, slammed the switches, and stood watching.

The brilliance of that one core of flame was blinding even through the dense goggles. At first it looked as though headway was being made, but

when ten, twenty, and thirty minutes passed and there was no flow of molten metal hope began to die. Cliff gave a despondent motion at last and cut out the switches.

"No dice," he muttered, tugging his goggles free. They stood surveying the blackened but otherwise unharmed patch where the rays had played. "It's not even scratched, and Heaven knows how thick it is. We haven't enough heat. . . . Titanite might do it." He stood looking toward the door impatiently but there was no sign of Morton or Sparks, no sounds from beyond the cavern.

"They're the devil of a time," Townshend said uneasily.

"Say, do you think. . . ." Val put his pipe solemnly in his mouth.

All three of them swung to the entrance together and stalked through into the adjoining cavern. There was no sign of either Sparks or Morton. There was no response to Cliff's shouts. He turned quickly to the cradle and pointed to it in surprise. It was loaded with cases of titanite, but of the two men themselves there was no sign.

"Probably they're getting some more stuff, or else they—" Val shook himself. "What's the use?" he asked bitterly. "We've no time to look into it anyway. Let's get busy."

Between them they set about hauling the cases back into the cavern, stacked the long sticks of high powered explosive under the spot they had attacked with ray batteries. It took them an hour to make all the necessary fittings and connections, complete with fuses. The wire to the latter they paid out as they backed from the cavern. They took it with them to the elevator cradle and gradually unwound it from its drum as they rose upward to the higher levels once more.

Once they arrived there they solved the mystery of Sparks and Morton. Both of them lay motionless, face down near the storage camps. They were dead, holes burned in their chests and faces.

"More photoelectrics hidden somewhere," Townshend muttered. "If we ever get out of this dump alive I'll be surprised."

HE made a final contact.

"Ready?" he asked, gripping the raised plunger rod.

Cliff caught his arm.

"Wait a minute! I just thought of something. Supposing we blow up the globe? What happens to all that stored potential energy? It won't travel to Earth—so, just *where?*"

"Can't you guess?" Townshend grinned almost ghoulishly.

"You mean," Val said, lighting his pipe, "that it will radiate to all parts of Mars and that we're sunk. . . ."

"Just that. Either us—or Earth. We can take our pick—maybe. Considering we had fifty men twelve hours or so ago and there are only three of us left now it doesn't take imagination to see where we go. Just the same, Cliff, you're the boss. Do I—?"

"Far as I'm concerned, ram in that plunger," Cliff replied grimly.

"Shoot!" Val thumbed down his pipe bowl, but his eyes watched the rod with a steady glitter.

Townshend rammed the plunger home. All three of them stood motionless and sweating as a titanic concussion blasted from the depths. The floor rocked under their feet; hot air came gushing up the chasm from the elevator shaft. The walls groaned and rocked under expanding forces and the floor ceased to be.

Cliff felt himself flung into space, went reeling through darkness with the shouts of Townshend and Val ringing in his ears. He landed with a force that

knocked all the breath out of his body—but he was unhurt. The lesser gravity had saved him from mortal injury and chance had thrown him on top of the subsidence instead of underneath it. He lay still in an abyss of dark, quivering, listening.

There was only one sound. Tick—tock. Tick—tock.

THEN it had failed. The mechanism was still working! Scrambling to his feet Cliff pulled his torch from his belt and tested it gingerly. It flickered for a moment then steadied. He flashed the beam round on an incredible vision of chaos. The explosion had blown the roof out of the cavern, buried several of the smaller balls under a mountain of debris. Equipment, particularly the rubbish magnetizers that had been on the upper levels, had tumbled down here, undamaged thanks to their massively strong casings. Of Townshend and Val there was no sign. They were somewhere amidst all this with the life crushed out of them.

Cliff's gaze swung to the giant ball. It was smoky black from the explosion, but otherwise untouched and unbudged. The solemn ticking was like a knife to Cliff's nerves. He looked round him desperately, trying to imagine how much time there was left. Now the x-ray machines had been smashed in the upheaval he had no means of seeing where the indicator had reached.

With a thud he sat down, trying frantically to think of a last possible way. His own life didn't matter now: it was Earth that counted, with its millions of unsuspecting souls. In the gloom and the dark of those moments the mechanism was his only company.

Tick—tock. Tick—tock. And each move bringing nearer the consumation of a posthumous plot to destroy and avenge.

CHAPTER VI

Alone—with Ticking Death

TICK-tock. Tick-tock. Tick-tock.

As Cliff sat there, each swing of the giant pendulum grew more inexorable, its ticking growing in the utter silence of a dead planet's interior until it became a thundering vibration that pounded in his ears like the measured tread of Death himself.

Tick-tock! *Tick-tock!* TICK-TOCK!

Cliff leaped to his feet, his brain reeling.

"No!" he shouted. "By the gods, no!"

Furiously he rushed at the giant ball, beat against it with his fists as though the physical contact would relieve the terrific pressure that was building up inside him; a pressure that bade fair to equal the awful potentiality that was stored up in that sphere of destruction. He backed away with a sob, fingers bleeding, and tore his ray gun from his holster.

He held it on the ball until its charge was exhausted; then he hurled the useless tool at it.

The gun rang against the immutable metal, clattered away into the shadows of the cavern.

Silence fell again, except for the sound of the pendulum, measured, undisturbed, grimly purposeful.

TICK-TOCK! TICK-TOCK!

Cliff stared about, through the gloom.

"Science," he muttered. "An incredible, diabolic science. These Martians knew too much."

He moved about among the tumbled rubbish of the explosion, braving the possibility of still further hidden devices of sudden death stabbing burning horror down upon him from the darkness.

"Thousands of years ago they all

died," he went on through clenched teeth, "but they are still here, in spirit, brooding, gloating, like these infernal balls, over the death that is their power to call down. But they won't succeed in their damned plan! No, by God, they won't!"

He stared about, a bit wildly.

"Somewhere among all these damned machines must be one that can be turned against that ball; one that'll open it . . . Funny if their great science didn't have that power. They hollowed out the balls in the first place, moulded others. Maybe. . . ."

Grimly he searched, prying about in the debris that lay upon the floor, examining each ball that he found, pushing and shoving at each machine he encountered.

But nowhere did he find anything that resembled a tool or weapon or force that would answer his purpose. All of it, it seemed, was for one purpose—to guard the great ball against harm, rather than to destroy it, and to kill all who entered the cavern.

AS he stumbled on in growing terror and realization of his utter helplessness to stop the diabolic swing of that giant pendulum, no sudden death lashed out at him.

He shook a fist into the emptiness.

"At least we did that!" he shouted. "We wrecked your infernal control apparatus that operated these murdering rays and traps!"

Tick-tock. Tick-tock. TICK-TOCK.

Cliff's brain seemed to pulsate in rhythm with the booming noise of the pendulum. It began to permeate his whole body, become the beat of his very heart superseding its natural rhythm, slowing his very life processes to its own deadly pace.

He stumbled on.

Then, suddenly, he came to a rigid halt, his eyes fixed on a looming figure in the gloom. A human form it seemed —a living form.

"Who's that?" Cliff croaked. "Who's there . . . ?"

Suddenly he rushed forward, incredulous hope flooding into his icy brain.

"Val!" he shouted. "You escaped the landslide . . ."

His voice froze in his throat.

It wasn't Val. It was a statue; a metal figure, tall as a man, but not like a man. It wasn't a human figure at all.

He stared with amazement and a growing sense of eerie horror at it.

"My God!" he gasped. "It's a statue of a Martian!"

He approached gingerly, and looked at it closely.

The figure was that of a spindly-legged, pipestem-armed, and barrel-torsoed creature, with a large head and popping eyes. It stood with one large splay hand over what was evidently a three-dimensional representation of the solar system. Cliff recognized the planets, and even saw a tenth planet where he knew the asteroid belt now to be.*

From the small ball that indicated Mars, a thin band of gray *anilum* ran to the tenth planet. And from Mars another ran to Earth.

Cliff's face suffused suddenly with rage.

"So that's it!" he shouted. "You murdering devils have done this damned trick once before. You've already smashed up one planet, and now, even after you're dead, you plan to smash up another —out of a long-forgotten revenge!"

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*Science has long held that a planet once existed between the orbits of Mars and Saturn, where now there is only a belt of asteroids and small bits of rock and metal. By some mysterious catastrophe, it exploded, or was shattered, and through the ages, its bulk spread out thinly until now it forms a vast ring of fragments about the sun in the orbit of the former planet.—Ed.

For a moment Cliff went berserk, and he charged upon the ugly figure of the Martian and hurled it to the metal floor with almost superhuman effort.

The statue fell with a crash, and to Cliff's utter amazement, it shattered into bits.

"It's not *anilum!*" he muttered in an awed voice. "It smashed like . . . like—"

He knelt and examined the shattered figure, and from the debris of it picked up a small whitish piece of bone. As he fingered it wonderingly, it crumbled in his hand, becoming a fine, whitish powder that drifted to the floor.

"Bone!" he exclaimed. "This wasn't a statue, it was the last Martian himself, perfectly preserved here in his own death-trap! And he was standing there, gloating, even as death came to him, over the vengeance that he had planned for a race that was not yet born!"

CLIFF kicked out suddenly with his foot, sending the fragments of the mummy skittering along the floor in all directions. He was sobbing with pure fury after a moment, and then he turned and stumbled away from the horror that he had discovered.

Tick-tock. Tick-tock. TICK-TOCK. TICK-TOCK!

Interminably, on and on, the horrible ticking reverberated through the cavern, and Cliff fled from it, his hands over his ears.

"I can't stop it!" he moaned. "Not a thing I can do. Here I am, helpless, while that awful voltage prepares to launch itself at the Earth."

He sat down suddenly on a jagged piece of rock and sobbed like a baby. the reaction of his fear and terror and horror had finally set in. For some moments his frame shook with emotion, then gradually he quieted, and a grim look came to his face.

He sat for some time staring into the darkness, then he rose once more to his feet and strode determinedly back toward the big ball and the invulnerably protected pendulum.

"There must be a way," he whispered. "No science can be absolutely fool-proof. There's a way that any slightly clever engineer ought to be able to stop a simple pendulum from swinging. And I'll find that way! I'll find it before it's too late . . ."

But as he stared at the huge ball, he knew that he was indulging in wishful thinking. Perhaps there was a way, but it would take more than the few hours he had left to find it.

Just how much time *did* he have? He glanced at his watch and cursed. He had smashed it sometime during his wanderings through the cavern. As its hands stood now, he had only seven hours left when the watch was broken. He had somewhere between two and five hours left.

"That's too indefinite," he muttered apprehensively. "Even if I do find a way, maybe I won't have time to finish doing it."

He began a careful search over every inch of the ball, even piling up debris so he could get on top of it. Once he fell, sliding from the smooth ball, but he was able to rise once more to his feet, although he could scarcely stand on a twisted ankle. After that he crawled about on his hands and knees, inspecting the base of the ball, and trying to find an inlet cable that he could short-circuit.

There was nothing.

Despair seized him once more and he sat thinking.

Tick-tock. Tick-tock. Tick-tock . . .

HE began to fancy that he heard whispering in the darkness about him and started and peered around search-

ing for the author of the voice. But he could see no one.

"There's a way, Cliff," came a muted voice, s e e m i n g l y from far away. "There's a waaayyy."

Cliff was on his feet, trembling.

"Townshend!" he exclaimed. "Oh my God, I'm going mad!"

His own voice echoed back to him from the distant reaches of the cavern.

"Townshend—going mad . . . Townshend . . . mad . . . going . . . oh my God . . ."

Cliff forgot his injured ankle and began to run, then cried out sharply as it gave beneath him, and he tumbled to the floor once more.

He sat up with an effort, and groaned.

All about him he seemed to hear whisperings, and he trembled violently. He got out his flash, and lit it, sending its bright beam casting about the cavern into every cranny of it, searching for the author of the voices that tortured him.

Tick-tock. Tick-tock. Tick-tock.

For a time, in his growing madness, Cliff had become aware of the ticking of the pendulum, but now it beat back upon his consciousness like the blows of a giant hammer.

He screamed.

"I've *got* to stop it!" he shouted.

And the echoes shouted back,

"Stop it!—Stop it!—STOP IT!"

They become a thundering clamor of many voices, then died away.

Sobered by the tumult, Cliff became quiet, and his eyes cleared. Deliberately he swung the light about the cave.

"Yes," he muttered to h i m s e l f. "You're right . . ."

The beam from the flash caught a ball of *anilum* high overhead.

"Maybe that was the one that killed Richardson," said Cliff. A look of rage passed over his face. He sent the beam questing on. Down the walls of the cave, to the floor, littered with debris.

Then on to the giant ball, and beside it to—

The magnetizers!

THEN slowly an idea began to form in Cliff's tortured mind. His idle torch beam was focused quite unintentionally upon the massive bulk of the three magnetizers that had fallen from above in the explosion that had left him the sole survivor.

"X-rays passed through that ball . . ." he muttered. "Other radiations passed through because Townshend measured them on instruments. In that case, suppose I—?"

He jumped to his feet and raced over to the nearest magnetizer. Putting his shoulder against it he shoved and heaved with all his power. It stirred a little, finally righted itself. He stood back, panting, thanking Providence for the lesser attraction that had made his Herculean feat possible.

Without pause, perspiration streaming down his face and limbs, he shoved and heaved and levered the second machine into position, and then did the same with the third.

He was working to the last possible throw of the dice. If other radiations could pass through the globe from inside to outside, then the process could be reversed. Magnetism streaming from the giant horseshoes of the machines, trained on the pendulum inside the ball, should stop its swinging!

If that could be done the machine would be powerless. True, something might happen to the potential energy that would be released, but at least it wouldn't hit the Earth.

Cliff slammed home the generating switches on the first machine and listened intently. Over the drone of the dynamo the pendulum made a noticeable waver. It was obviously disturbed.

There was a definite irregularity.

Cursing himself for a fool for not having thought of the thing before, he closed the switches on the second and third machines. The tripled stream of magnetism had an instant effect.

Cliff lived centuries in those seconds. The pendulum gave a sharp, strident tick, there was a long interval, then a solemn—tock.

Tick—Tock. Tick— Silence.

Dead silence expanding into seconds —minutes! It was a silence of infinity itself here in the bowels of Mars. But the pendulum had ceased to swing. The magnetism had counterweighted it. Cliff wanted to scream, to shout, to tell a planet forty million miles away that it was safe. But he had no way.

Thoughts flashed through his anguished mind. Trapped down here, valves shut, comrades gone, radio smashed—

He became tense. Strange noises were in the giant ball. Curious whirring noises. He stared at it in fascination as it turned a bright, glowing white. It became violet and he felt his skin blister with radiations.

A million pains stabbed through his eyes, slashed and tortured his body so that he dropped in gasping death at the foot of the defeated monster. . .

He never saw nor heard the globe as it exploded with colossal violence to release the energy it had so long stored up.

BUT they saw it on Earth, and felt it as the Earth reeled from a sudden gravitational change. The report that flashed round the world was ironic and coldly official to say the least of it.

"Severe Martian explosion has caused the planet to suffer almost complete disintegration. Remaining parts in state of collapse. Feared anilum *Expedition wiped out. The men engaged in same probably contacted an old volcanic seam. Rescue party leaving immediately.*

"Earth Bureau of Official Information."

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Scientific

The WHY AND HOW OF LIFE IS THE MOST AMAZING MYSTERY OF ALL -- BECAUSE WE OURSELVES ARE PART OF THAT MYSTERY.

ALL LIFE BEGINS WITH THE SIMPLEST LIVING FORM, THE AMOEBA, INVISIBLE TO THE NAKED EYE . . .

CHEMISTS CAN PRODUCE ARTIFICIAL MUSHROOMS FROM METALS AND SOLIDS. THEY LOOK ALIVE, BUT THEY ARE NOT.

WHEN SCIENCE FINDS OUT WHAT ELEMENT IT HAS NOT INCLUDED, WILL IT BE ABLE TO CREATE LIFE --- EVEN MAN - FROM THE TEST TUBE ?

Mysteries

MYSTERY OF LIFE

By JOSEPH J. MILLARD

We take the fact of living for granted; but how does it happen that we are alive? And can we duplicate the feat?

IN past revelations of *Scientific Mysteries* we have sought elusive unsolved riddles in the most obscure places—on the moon, in prehistoric ruins on earth, among queer races of peoples, in all sorts of out of-the-way places. In so doing, we have avoided at once the commonest and the most bewildering of all the mysteries that face science. It is a mystery that manifests itself in us and around us, wherever we are In fact, we ourselves *are* the greatest mystery of the universe, along with every other living thing both great and small.

Exactly what is life? How can *Life* be defined? What is the difference between a living and a non-living, or dead, object?

Almost everyone thinks he can answer that last question –almost everyone, that is, except scientists who have studied the subject for generations. As a matter of fact, there is almost no known characteristic of a living form that is not duplicated by some non-living form Today, scientists are creating artificial life forms in their laboratories that are so similar to living creatures that to the outsider it begins to look as though there is actually no dividing line at all between living and lifeless matter. Science says there is—but it's having a harder and harder time to prove it in a satisfactory manner.

What are the common characteristics of living matter? Well, living matter usually exhibits the ability to grow and reproduce and move about in its environment, to respond to external stimuli and to take nourishment. Many schools today are teaching their pupils that if an organism or particle of matter can do those things, then it is alive What a rude shock those teachers would get if they could visit one of the modern laboratories where research into the origin and meaning of life is being conducted.

TAKE the supposed life-characteristic of growth. Living organisms grow, and with growth they also reproduce. The simplest single celled organism grows for a time and then becomes two cells, either by cell division or by budding or similar means.

Almost everyone is familiar with the common single-celled microscopic animal, the amoeba. About a fourth of a millimeter in diameter, the amoeba is an irregularly-shaped organism, colorless and invisible to the naked eye. The amoeba moves by pushing out shapeless "feet" or pseudopods at odd points while at the same time, it uses that movement to stream the medium in which it lives through its own body. As this liquid streams through, the amoeba extracts food it desires and ejects any inedible particles like sand. When food is plentiful, the amoeba grows noticeably larger and then divides into two distinct amoebae that go their respective ways.

The amoeba represents simple life in action. *But* so do a number of non living substances.

A minute drop of oil placed in water to which has been added some activating chemical will apparently become a living amoeba. Dr. Jennings, Professor of Zoology at Johns Hopkins University, uses droplets of olive oil floating in glycerine which contains some alcohol for his sensational experiments.

With nothing more complicated than his oil drops, anyone can perform this same experiment. The oil drop is round at first. Then, exactly like the amoeba, it begins to move about by putting out pseudopodia. If it grows large enough, it divides exactly as the amoeba did, and becomes two separate "organisms." Streaming takes place internally. A heavy oil like chloroform will even go so far toward imitating life as to actually digest bits of shellac. If the shellac is coated over sand grains or glass particles, the artificial creature "eats" the shellac and excretes the particles. If an "inedible" substance like a bit of glass or wood is offered to this artificial organism, it immediately retreats. If the particle is forced inside the drop, it is immediately ejected with some force.

But if any of a number of other particles—shellac, paraffin, styrax, Canada Balsam, etc.,—are held near, the artificial animal actually reaches out for

the tidbit and pursues it if an effort is made to take the "food" away.

BUT there is a still more complex and striking similarity between the living and the lifeless organisms. An amoeba frequently eats a string of algae much longer than itself. This it absorbs in a striking way by drawing in a loop of the string and gradually coiling it into a long spiral within its body. Weirdly, a chloroform droplet, offered a string of shellac, attacks and eats it in *exactly* the same manner.

Still the imitations of life are not complete The Difflugia, a relative of the amoeba, covers itself with a fragile and lovely shell made of sand grains, diatom shells and other bits cemented together so cleverly that not a joint can be located under the microscope. There, we say, is a power exclusively reserved for a living creature. But is it?

If our oil drop is rubbed up with a fine dust of ground glass and injected into water, it immediately builds itself a single-layer shell of delicacy and texture that is almost indistinguishable from that of a living Difflugia.

Still more startling were the results gained by Drs Crile and Telkes at the Cleveland Clinic. They used droplets of oil extracted from the brains of freshly killed rabbits and found not only all the characteristics previously mentioned for ordinary oils but the presence of a nucleus, as well. Furthermore, they found evidences of respiration, pointing to true chemical reaction within their artificial "animal". Further experiments revealed that these obviously non living drops could be "killed" by poison, suffocation or starvation in exactly the same way that the amoeba, the rabbit, or even man, are so killed

But, sensational as this science of plasmogeny, as one researcher calls it, is it represents but a single step out of many science has taken in its efforts to understand and recreate life. There are others more incredible.

TAKE our nerves, for example. We know that nerve impulses are electrical in nature, can be measured by electrical instruments and timed as to speed A nerve can be stimulated by the application of electricity, an irritating chemical, or by simply striking or tearing or stretching.

Dr. R S Lillie of the University of Chicago treated a length of iron wire with acids and got almost a perfect artificial nervous system. An electrical negative charge traversed the wire at a speed slow enough to be followed by the human eye—a speed that almost exactly corresponds with the speed of certain nerve impulses, whereas an ordinary electric current flowing through a conductor travels at the speed of light.

Furthermore, the application of acids or simply tapping, bending or stretching one end of the wire sent an identically similar electric impulse traveling over it.

After a nerve in our bodies carries an impulse, it "goes dead" for a brief period, becoming a non-conductor. This is to prevent a "kickback" of the impulse. Strangely, the wire "nerve" created by Dr Lilly showed the same "refractory period" which resulted in making all impulses maintain the same direction as they do over our own nervous system.

In the human body, certain nerve impulses are rhythmic and automatic, like those controlling the beating of the heart, for example. Dr. Lillie's wire held a charge at one end and sent it out through the remainder in regular rhythmic impulses. Again one of the characteristics of life was imitated artificially.

FOR years, scientists maintained that the ability to form crystals was wholly and entirely a characteristic of non living matter No microscope was strong enough to show even traces of crystal formation in organic matter. Nevertheless, the habit of crystals arranging themselves into forms that strikingly imitated living organisms made many scientists wonder if there were not a hidden connection somewhere.

If we allow a saturated solution of salt or sugar and water to evaporate to a point where crystals begin to form, we see the usual irregular planes and angles of large crystals. Surely, nothing like a living form is visible in their geometric mass.

But add a bit of gelatin or starch or any other slimy matter to that solution and notice the difference. Immediately the large crystals break up into masses of smaller ones that regroup themselves into an almost perfect resemblance to a plant leaf.

Crystals imitate life in many other striking ways. For example, crystallized starch takes the form of living cells, many of them even possessing cell walls and a nucleus. Spiral formations, so common in simpler life forms, is beautifully imitated by the spiral organization of paraffin crystals.

Anyone can make beautiful artificial "plants" that actually grow and act like living cora. A crystal of potassium ferrocyanide, placed in a one per cent solution of copper sulfate will, within a few minutes, start to grow. Shoots spring up. These spread out into branches and leaves until a beautiful plant is formed—simply by the osmotic growth of the crystals. A pill, moulded of cane sugar and copper sulfate, dropped into a solution of yellow prussiate will produce an even more lifelike and elaborate shrub. The most gorgeous forms of all are produced by dropping various metal salts into sodium silicate or water glass. Many-colored plants are formed, complete even to branches, leaves, blossoms and buds.

With lime salts in a soda solution Stephane Leduc grew artificial mushrooms so realistic that even botanists mistook them for real mushrooms. Even the internal fibrous structure of the stems was similar to that which nature builds into her product. With similar methods, Leduc also grew strikingly realistic artificial nerve cells, complete even to nerve fibers sprouting from a ganglion.

His synthetic "zoo" also contained strikingly life-like worms, cells and other organs or organisms.

Not only do these artificial life forms grow and bear a striking resemblance to living matter but they exhibit other similarities as well. Some of these chemical "plants" will grow toward light, even as real plants do. An artificial jellyfish and a living creature of the same type both bent toward the negative pole when an electric current was passed through their solution.

THESE are interesting experiments, you may say, but what have they to do with the secrets of life? Perhaps the story of a Swiss research chemist, Ehrenfried Pfeiffer, may supply a most startling answer.

One winter day, Pfeiffer noticed the beautiful formation of frost crystals on shop windows in his town and paused to study their designs. Suddenly he discovered that the designs on the windows of a butcher shop were rough and coarse while those on a flower shop window were delicate and flowery. Was there, he asked himself, some connection between crystal growth and some mysterious life force?

He began to experiment, adding plant extracts to ordinary crystallizing salt solutions. Results were fantastic. An extract from a water lily made the salt crystals take the gracefully curved outline of a lily plant. Extract from an agava formed the characteristc spikes of that plant. Other plant extracts created patterns of their life forms to an amazing degree.

Experimenting further, Pfeiffer made two solutions, one containing extract from the seeds of a healthy pine tree, the other from one that grew crooked. Amazingly, the crystals from the straight pine solution showed beautiful sweeping curves while those from the crooked tree were irregular and broken. As a result of those experiments, European horticulturalists use many of Pfeiffer's tests in selecting healthy plant stock.

Convinced that he had discovered the presence of some vital but invisible life force controlling form, Pfeiffer began to experiment with solutions of human blood. He found that, regardless of the salts used, healthy human blood produced almost identical crystal formations. But the blood of diseased persons produced a characteristic formation Tubercular blood, for example, makes the crystals take a pattern of crossed fibers in a Maltese Cross design. This discovery, while still in its infancy, has been successfully used in diagnosing diseases.

Out of these apparently unrelated experiments and tests has come a breath-taking hint. Perhaps there is a point, somewhere below the limits of visibility, where there is no boundary at all between living and non-living matter. Perhaps life is, after all, no more than a particular carbon compound out of the three hundred-odd thousand known today. If that is so, then the laboratory is much nearer to its goal of explaining and creating living organisms.

JUST a few years ago, schools taught that the smallest living matter was the single-celled plants and animals. Now we know that the filterable virus, an enzyme, is a living organism that contains but a single molecule. Since we know that no material can be divided smaller than that and retain its form, we can consider the virus the smallest living matter.

Experimentation with various viruses finally resulted in crystallizing a pure virus material, that which causes the plant disease known as Tobacco Mosaic. X-rays revealed the crystalline structure of the virus (as they since have of many other living materials) and thus removed what had been a barrier between crystalline forms and life forms So, perhaps the growth of crystal pseudo-life forms is more than just an accident.

Many scientists now believe that life began as an accident. We know that all life matter is some form of carbon compound. We also know that when an electric spark is passed through any gas containing carbon, an endless variety of carbon compounds are formed as a result. There is no order or rule about the results. Anything may result.

So science believes now that perhaps, when the earth was young and hot and surrounded by a gaseous envelope resulting from the vaporized minerals, lightning played through those clouds and carbon compounds were formed. Eventually, chance produced the exact compound necessary for a life-form in an environment where it could grow and reproduce. So life began, they say, and experiments tend to strengthen that theory. That hydrocarbons are formed is evidenced by the fact that Jupiter is surrounded by an envelope of methane, the simplest hydrocarbon. Whether a more complex carbon compound like protein has yet "happened," we do not know.

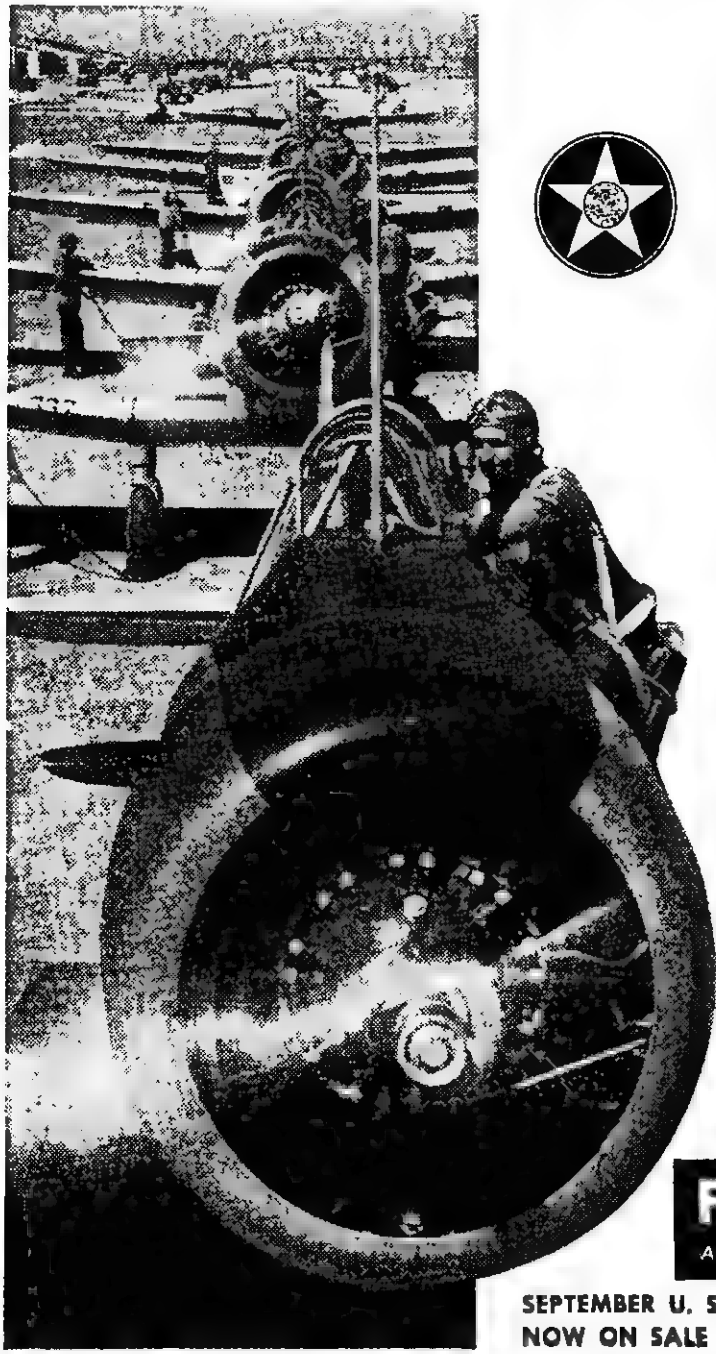
Science is still pitifully far from understanding the true nature of life or from creating any actual living substance in the laboratory. But it is astoundingly close to such a discovery. The interlocking of these various phenomena is gradually leading researchers closer and closer to their goal.

A few years ago, Gurwitz the Russian experimenter, discovered that a strange radiation which he called mitogenetic rays were produced by certain living cells. By pointing the tip of one onion plant at another, he focused the invisible radiation in such a way that cell growth at the point of focus was tremendously speeded up. Later, he identified the strange radiation from many other life forms but so far the progress in tying this discovery in with our understanding of life has been pathetically slow.

But the time is rapidly passing when scientists dare say that life cannot be created synthetically. Today, many of them feel that it is only a matter of time until test tube life is a reality.

Who knows but what some day a race of supermen may come—not from the laboratory of the geneticist but out of the test tubes and retorts of chemistry?

The U. S. ARMY AIR FORCES *Issue*



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SEPTEMBER U. S. ARMY AIR FORCES ISSUE NOW ON SALE AT ALL NEWSSTANDS—50c

Meet the Authors

SOME months ago, one of your favorite Chicago writers remarked rather plaintively: "A year or so ago I was about the only writer in Chicago selling stories to AMAZING and I was plenty busy. Now there are at least a dozen guys right here in town fighting for the front of the book and a name on the cover."

Well, I'm just one of the dozen. How I got that way, or From Rags to Riches, is a thrillingly unexciting story that teems with an appalling lack of adventure and is probably of interest to nobody but myself. I'm saving most of it for the time when I can gather my assorted posterities around my aging and rheumatic knee and lie gracefully.

JOSEPH J. MILLARD

Writers are somehow expected to be glamorous, mustachioed figures who swirl gaily through soldier-of-fortune escapades. My efforts at raising a mustache have been a total flop and the only time I was ever outside the USA was the time I drove across the bridge into Canada from Detroit, just for the hell of it.

I was born up among God's Frozen People in Minnesota, in a little farming town of under two thousand pop. Me and the year nineteen-eight crept into existence at very close to the same time. Graduated from high school there by dint of hard work. If you don't think it's work to think up ways of annoying the teachers until they graduate you in sheer desperation, regardless of marks or lack of them, you just don't know about life. So there.

Anyhow, I started reading before I entered the first grade and have made it my favorite indoor and outdoor sport ever since. Started reading pulps (behind the barn) while I was in the fourth grade and was inspired to write a fantastic serial, believe it or not. This was painfully hand-scrawled on notebook paper, behind the screen of a geography book, and then circulated through the class, a chapter a day, until the teacher caught me. I dug the darned thing out not long ago and it's actually better than a lot of the tripe I've done recently. I'll doll it up some time and sell it. See if I don't.

Did a lot of direct selling during school vacations and put in a short sentence behind a grocery store counter. I quit that when the boss decided to stay open three nights a week until two in the morning to accommodate farmers and then refused me a raise from forty to forty-five bucks a month. The louse!

Drifted a lot after graduation and tried almost everything from punching cattle out in the Nebraska Sand Hill country to being publicity man for an air circus. Between times worked my way through business college and part of an art course, neither of which "took." Landed on the advertising staff of two trade magazines (hell, I *was* the staff) and sold my first piece of writing—a short article on restaurant management, about which I knew absolutely nothing. Since then have sold trade and business articles to forty-odd magazines besides editing five different trade magazines and owning one at one time.

Was married ten years ago to a school-day sweetheart and have one boy who thinks a hammer and my typewriter were simply made for each other. Sometimes I do, too. Anyhow, my boy is the real reason for my becoming an AMAZING STORIES writer.

In the hospital where he was born, I met a most annoying Jekyll-Hyde character. This man had a vexing habit of patting young Michael and saying: "What a fine boy" one minute and then in the same breath snarling: "Listen here, Millard. Are you going to take care of that little matter today? You know it was strictly understood that this hospital has ceased to extend credit on obstetrical cases . . ."

It happened that at that moment the number of people who didn't want any advertising or business articles written was simply colossal and something had to be done. So I dug into my pet

(Concluded on page 143)

DISCUSSIONS

AMAZING STORIES will publish in each issue a selection of letters from readers. Everybody is welcome to contribute. Bouquets and brickbats will have an equal chance. Inter-reader correspondence and controversy will be encouraged through this department. Get in with the gang and have your say.

ENCHANTRESS OF LEMURIA

Sirs:

Though not one of your regular readers—only buying AMAZING when some unusual attraction is featured—the last two issues (August and Sept.) have been so good that I am almost tempted to become one

The attraction that prompted me to buy the September number is, as you may have guessed, "Enchantress of Lemuria." This interesting and compelling yarn fully justified my expectations and easily ranks first on the list of favorites. So that's why you changed the title of Schachner's piece in FA from "The Enchantress" to "Return of Circe"—the titles would have been too alike.

Following at a respectable distance behind, in second place, is "Mutiny In Space" with "Ferdinand Finknodle's Perfect Day" in third. No comment on these two except to ask for more of the Rhyming Bard of Space.

Not such a bad cover, though I consistently prefer Paul's back covers. Fuqua may be master of the gadget, but Paul is still master of the machine and of mechanical drawing. As for the interior work, by far the best pic was drawn by Krupa for "Dr. Loudon's Experiment."

BILL STOY,
140-92 Burden Crescent,
Jamaica, N.Y.

It would be a good idea for you to become a regular reader. You "ain't seen nothin' " yet! And we'll have the Bard back before long.—Ed.

"One of these days an Earthman WON'T crash and then you'll lose your junk business."

AUGUST RATINGS

Sirs:

Here's the way I rate the August issue:

1—Of course the Burroughs story is first, but not as good as usual.

2 —"The Man Who Got Everything" was second. There were too many details.

3 "Mr. Muddle Does As He Pleases" was a real story.

4—"You Ought To Be Dead" was very good. A friend said the author should have been dead, but on that I could not agree.

5—"Taxi to Jupiter" was mixed up. Had to read it twice.

6—"Kid Poison" should have stayed with his box tops.

AMAZING is not the best mag on the market. *Fantastic* has it beat ten ways, but of course Burroughs makes it have the best story on the market. This is only my opinion, but I buy each magazine every month.

TOM LUDOWITZ,
2232 Rainier,
Everett, Washington.

LESTER ALLISON, JUNE O'NEIL WANTED

Sirs:

Your last issue was very good, especially "Survivors From 9,000 B. C." Please have more stories like that. Tell Wilcox to write some more stories of Lester Allison and June O'Neil on Mercury.

Give us an issue with just interplanetary adventure in it, will you?

ROBERT HASELTINE,
105 South Main Street,
Elroy, Wisconsin.

Okay, Bob, we'll comply with BOTH requests. We'll have an interplanetary issue again.—Ed.

(Continued on page 142)

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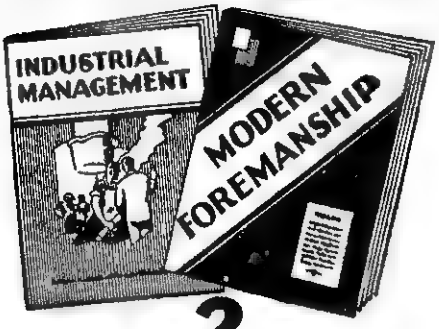

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(Continued from page 140)

ORCHIDS TO DAVID V. REED

Sirs:

Orchids to David V. Reed for his "Kid Poison", top story in the August issue, and tops in real enjoyment. Keep feeding me Wilcox and Binder and I'll never squawk. I'm all for the character who returns to the past to verify points in history.

PATRICK FESTA,
1126 60th Street,
Brooklyn, N. Y.

We have several historical yarns coming up, and they are worth waiting for.—Ed.

"MOSTLY TO GET McGIVERN"

Sirs:

My rating for the July issue is:

1—The Invincible Crime-Buster.
2—Survivors From 9,000 B. C.
3—Sidetrack In Time.
4—Mystery On Planetoid Ten.
5—No Man's Land in Space.
6—Ten Seconds from Nowhere.

The last one simply doesn't rate. Tell O'Brien to "perk up." I read AMAZING STORIES and *Fantastic Adventures* mostly to get William P. McGivern's stories. He's *super-colossal*. I would also like to see more of Henry Gade's stories.

EDDIE EVANS,
3720 Main,
Kansas City, Mo.

McGivern has several great stories coming up. And Henry Gade is finishing up a cover story based on a cover by a new artist, Malcolm Smith, which he has tentatively called "The Chlorophyl Girl," which he seems very enthusiastic about. We're hoping for something really fine. The cover is a beauty!—Ed.

SUGGESTIONS

Sirs:

William P. McGivern and David Wright O'Brien are my favorite authors, but I prefer them separate. You need not feel disgruntled, because you *have* done a swell job on the August issue.

The stories were all good. I disagree with L. L. Schwartz, who says: "In the future I want larger type, better stories, and fewer departments."

If you use smaller type, we get more for our money, provided you keep the same size magazine. As for better stories, I don't think that's possible. Fewer departments is, to me, a letdown. I think a mag with no departments isn't worth buying.

Paul's back cover was all right, but not as good as usual. St. John's front cover was very good, although I've seen better from him.

I am eagerly awaiting the Pellucidar series.

To prevent Mr. James Ladd from having fits, I'll say at the *end* of my letter that I'm 12

years old and also that I understand science fiction *quite* well.

LIONEL BATTY, JR.,
1485 N. Morningside Dr. N. E.,
Atlanta, Ga.

Our readers have voted approval on our present size type. We'll keep it. Also, we'll maintain all our departments except the Quiz, which has slipped in recent months. You'll notice that occasionally we have quite a few additional feature-fillers.—Ed.

Sirs:

"EDITORIAL BLAST"

Your editorial blast at a certain section of the fan magazines has me standing up and cheering. It appears to me that the fan editors never get humps in their back until an editor has rejected a few of their stories. That seems to bring out the literary critic in them.

You have rejected a story or two of mine, in fact, who hasn't. But I still like your magazine.

Why don't you quote circulation figures? That should prove something.

I see good things coming up. Is that promise of Bok just an idle hope. He is more suitable to a science fiction magazine than Finlay.

Nice to see Coblentz. He conjures the atmosphere that made stf what it was 15 years ago. How about L. Taylor Hansen, Gelula, Harl Vincent? We could use more of that solid stuff. A Morey cover would not hurt either.

SGT. NICHOLAS E. KENEALY,
QM Sect. SC CASC Unit No. 1982,
Hamilton Field, Calif.

You're wrong about that "blast." We were just presenting an angle that had never before appeared in our columns, and we want to be fair. We seem to have opened up a battle-royal, but it's a fine thing all around. After all, this is "Discussions" and we have a reputation to consider—that of having a real "round-table" where the editor isn't God, just "one of the boys who likes to argue too."—Ed.

MEET THE AUTHORS

(Concluded from page 139)

books of science and came up with a couple of Scientific Mysteries which that quince of editors, RAP, (Obviously Mr. Millard means "prince."—Ed.) amazed me by buying. He suggested I write fiction, lived to regret that rash suggestion, and finally BOUGHT—A—STORY!

After that, inspired by success, I wrote some more and sold some of them and found myself moving to New York as a full-time fiction writer. Which is where and what I am now.

When not writing, I'm a collecting maniac. My collections cover darn near everything from stamps and insects to Americana, maps, queer facts and mysteries of science and nature, microscopic specimens, advertising pieces of the Gay Nineties and money-making schemes—none of which ever work for me. But it's fun!—*Joseph J. Millard.*

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Paul Overby, 2004 S. 10th Ave., Maywood, Ill., has collection of SF magazines for sale at 5c each; send for list . . . Fred Drucker, 173 Park Pl., Brooklyn, N Y, will sell to highest bidder "The Ship of Ishtar" by A. Merritt . . . William Arnold, 1508 E. Clinton, Frankfort, Ind., wishes to swap book match covers in 50 lots . . . Tom Ludowitz, 2232 Ramer, Everett, Wn., will sell any book by Burroughs, moderate prices . . . Charlie Lee Morris, 443 W. Market St., Anderson, S.C., will exchange two SF magazines for one Fall 1941 AMAZING STORIES QUARTERLY; write or call in person . . . Richard Coughlan, 1 Maple St., Malden, Mass., would like to trade photographs and correspond with those of either sex, American or foreign born . . . Brice Polier, 819½ 9th St., Oshkosh, Wisc., wants correspondents . . . Reavis Chancellor, Box 7, Juliette, Ga., wishes to buy "Skylark of Space" in any form, at any price . . . Larry Shaw, 1301 State St., Schenectady, N Y., would like to buy old SF, and fan magazines; send price list; fans and readers in Schenectady vicinity, interested in forming a club, contact Larry . . . Charlotte Herzog, 966 St. Marks Ave., Brooklyn, N.Y., would like to correspond with anyone from 16 to 18, anywhere . . . A. J. Green, 2396 Morris Ave., N Y.C., wishes to correspond with fans 18 yrs. old, girls from 16 up, interested in roller skating, photography, etc . . . Charles Goring, Jr., R R. 2, Fredericksburg, Va., wants to swap articles with readers . . . J. F. Autry, 602 N 23rd St., Corsicana, Tex., will furnish informatoin on any Burroughs stories . . . S. Feldman, 62nd Materiel Sq., 47th Group, France Field, C.Z., would like to contact anyone whose hobbies are stamps, coins, model railroading, Aviation, etc., who would like to join a new club.

A CITY IN THE MOON

BY HENRY GADE

Our back cover presents artist Paul's conception of Luna, a city inside the Moon. Here are the scientific facts on which his conception is based

ALTHOUGH the Moon's surface is a barren waste of sand, rock, blazing heat, and icy cold, there is no good reason to assume that it is uninhabitable, that there is no life there. Science well knows that it is pitted with tremendous caverns and that there are great areas where living conditions may exist below the desert surface.

Many of the craters we see on the Moon are caused by volcanic activity, far back in the dawn of her history, when she was a world with an outer atmosphere, much like the Earth, of which she is a true daughter, having been spawned in the beginning from a great fissure which now exists as the deepest part of the Pacific ocean. But many of the craters, too, are not craters at all, but the result of great meteorites striking the surface.

Sometime in the dim past, Earth, and the Moon, rode through a horrible "storm" in space; a storm of rock and metal debris, probably from a shattered planet, or a huge cometary nucleus. It was in that "storm" that both planets suffered this great bombardment. We have evidences on our Earth, protected by a thick blanket of atmosphere, of it, in the Nevada meteor crater, and in the Carolina craters.

Perhaps it was that great celestial tragedy that wiped out whatever surface life existed on the Moon, and drove whatever survivors remained to build cities in a safer place, deep inside the Moon at the bottom of these great craters, and in the natural caverns that exist, perhaps all the way to the core.

Let us visit, in imagination, the chief city in the moon, the great metropolis of Luna.

After a long climb down one of the steep crater walls, we come to the "door" of the city. This is a vast glass and metal "plug" that acts as a stopper. We enter through an air-lock. Down below it we find air. And we immediately realize the reason for the "plug." It is to retain the artificial atmosphere that the Lunites manufacture to fill their cities.

Once below this air-lock, we are awed by the tremendous spectacle that opens out before us. The Lunites are a much older race than we, because the Moon cooled faster, being a smaller body. Thus, they have a vast civilization, and a great scientific knowledge.

Thus we see an amazingly orderly and perfect city. Indirect lighting from an unseen source makes the city appear to be in upper-daylight, without the glare of direct sunlight. All buildings are streamlined, and constructed as open to light as possible. Pedestrian levels extend down, tier on tier, to the city depths below. It is a city of "up-and-down" with a vengeance.

We see no vehicular traffic, with the exception of swift elevators. "Travel" on the Moon is not a holiday pastime. There is no great distance to travel, except on the surface, where Lunites rarely venture.

As we descend, we are impressed by the tremendous column that graces the center of the city, and leads up through the "plug" at the crater-city entrance. We find that this is the "power-house." At its top there is a solar motor which collects the power from the sun and converts and stores it in the city storage batteries. Fourteen days of sunlight on the surface are utilized to collect energy to last through the fourteen-day (Earth days of 24 hours are referred to here) night.

The life of a Lunarian is not an arduous one. It is perhaps the closest to Utopia of any city in the solar system. Science has so advanced that the Lunite citizen has most of his time to himself, giving only a short period as his share of the "work" that keeps this orderly city running.

This work consists of tending the power machines, and of manufacturing the synthetic food, from basic materials, and imbuing it with the necessary vitamin content obtained as a by-product of the sun motor power. The sun's light supplies most of the healthful qualities needed by an underground civilization, and the others are chemically created from the elements themselves.

The balance of the Moon-man's time is devoted to the arts, to relaxation, and to cultural pursuits. We may find that sculpture, painting, music, and literature are developed to a very high artistic standard, and that an esthetic perfection is attained that is unequalled anywhere else in the system.

We may indeed marvel at this super-city inside our satellite. It is perhaps the first wonder of the whole planetary family.

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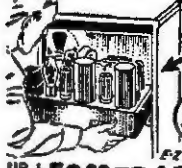

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29x5.25-19	2.45	1.15	
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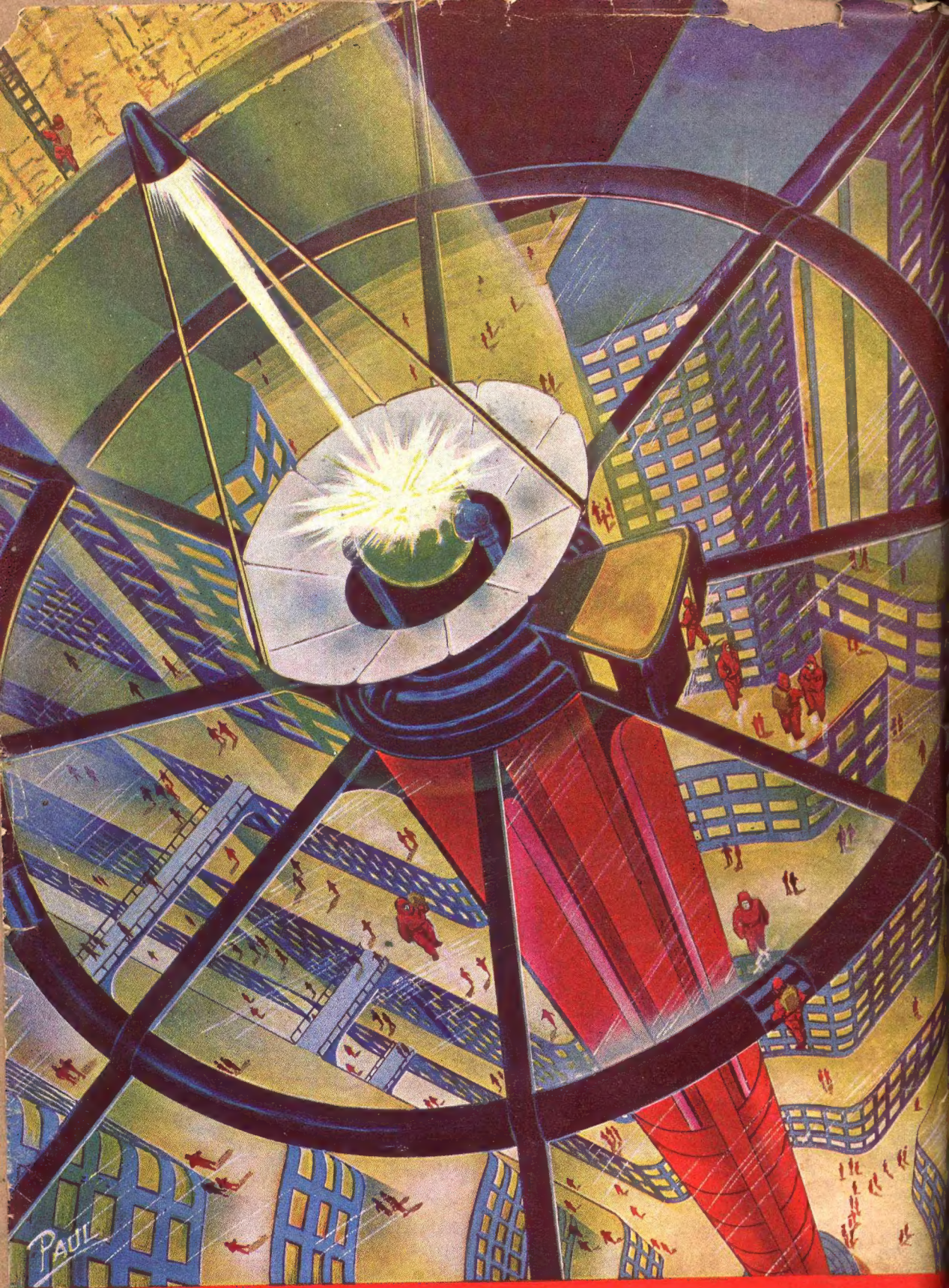

CITY INSIDE THE MOON

Here is the crater city of Luna, built deep inside the Moon. Air is maintained under its sealed dome and power is drawn from the Sun. Its people are highly civilized and scientific. (See page 145 for details)